REPORT OF RCRA COMPLIANCE EVALUATION INSPECTION

AT

Mycogen Seeds Quality Laboratory
208 Leo Street
Marshalltown, IA 50158
EPA ID number: IAR000500439

ON

February 23, 2011

BY

SES, Inc.

FOR

U.S. ENVIRONMENTAL PROTECTION AGENCY
Region 7
Environmental Service Division

505911

INTRODUCTION

At the request of the U.S. Environmental Protection Agency (EPA), I conducted a Resource Conservation and Recovery Act (RCRA) Compliance Evaluation Inspection (CEI), at Mycogen Seeds Quality Laboratory (Mycogen), 208 Leo Street, Marshalltown, IA 50158, on February 23, 2011. The CEI was conducted under the authority of Section 3007 of RCRA, as amended. This narrative report and attachments present the results of the CEI. Attachment 1 includes the Handler Information Report. I changed the Handler Information Report by updating the site contact name, phone number and hazardous wastes handled. Attachment 2 includes a Region 7 Multimedia Screening Checklist completed during the inspection. A Drive-by and Site Entry Checklist (Attachment 3), Facility Background Worksheet (Attachment 4), and a diagram of the facility (Attachment 5) also are included. In addition to the CEI, I provided compliance assistance in the form of handouts and technical guidance.

PARTICIPANTS

Mycogen Seeds

Jon Lehman, Quality Control Leader
Traci Heimer, Quality Coordinator
Randy Hennings, Quality Coordinator

SES, Inc.

John H. Parks, RG. Engineering Geologist

INSPECTION PROCEDURES

Before entering the facility, I conducted a drive-by inspection. During the drive-by inspection, no areas of concern were observed.

Upon arrival at the facility, I asked the receptionist if I could speak with the environmental manager and informed her that I was a representative of the EPA and was there regarding an inspection of hazardous waste compliance. The receptionist told me that the person responsible for environmental compliance was Mr. Lehman. The receptionist went to get Mr. Lehman, who granted me access and led me into his office.

I presented my EPA credential letter to Mr. Lehman and explained the purpose of the CEI. At that time, I thoroughly explained the purpose of the CEI and the procedures that I would follow and I provided Mr. Lehman with a U.S. EPA Confidentiality Notice (Notice) (Attachment 6). I requested that Mr. Lehman read the Notice and stated that at the conclusion of the CEI, he would be given an opportunity to make or not make a claim of confidentiality for Mycogen. I then provided Mr. Lehman with a copy of RCRA Section 3007 that provides the authority for conducting the inspection, which he read,

and the U.S. Federal Code 1001 and 1002, which he also read concerning giving false statements and documents to federal inspectors.

Mr. Lehman informed me that he was new to the position and had a guide book that he was supposed to follow for federal inspectors. Mr. Lehman attempted to call several people on his corporate call list. Eventually, he spoke with a corporate attorney and was given the approval to continue the inspection process.

The CEI consisted of the entry briefing, discussion of waste streams, discussion of waste management practices, visual inspection, records review, discussion of compliance information, and exit briefing. During the visual inspection, I was accompanied by Mr. Lehman with Ms. Heimer and Mr. Hennings, joining us at various locations to discuss specific details of the operation and procedures. There were 18 photographs taken during the CEI and one taken after; a photo log and individual photographs are included as Attachment 7.

At the conclusion of the CEI, I conducted an exit briefing with Mr. Lehman. Attachment 8 includes an Exit Briefing Checklist, which indicates the name and title of the exit briefing participants. At this time, Mr. Lehman signed the Notice indicating that no confidential business information had been provided during the CEI. This Notice is previously cited as Attachment 6 in this report. I also provided Mr. Lehman with a Receipt for Documents and Samples (Attachment 9) and a Notice of Preliminary Findings (NOPF), (Attachment 10), both of which he signed as acknowledgement of receipt. Mr. Lehman was contacted on March 15, 2011 about the changes on the NOPF and to gather additional information. Mr. Lehman was contacted again on April 4, 2011 to notify him of additions to the NOPF regarding the in contacts with emergency services.

FACILITY DESCRIPTION

Mycogen is an agricultural seed testing laboratory. The company began operations in 1998 at the current location. Mycogen's activities include receiving seeds to be tested, germinating and physically testing growth, genetics and content. The testing is conducted in various laboratory rooms in the facility. Technicians split the bulk seeds and place them in various areas to be tested. Some seeds are placed in growth boxes for germination, while others go to genetic and special traits laboratories for testing. The genetics are tested using a typical gel electrophoresis process with photographic development for recording the results.

Mycogen is located on the northern edge of Marshalltown, Iowa and consists of one building **(Photo 1, Attachment 7)**. Mr. Lehman estimated that the size of the facility is approximately 13,000 square feet. He said there are currently 15 employees that work full-time on one shift, 6:30 am to 4:30 pm Monday through Friday. Up to 15 temporary employees help occasionally with heavy lifting as needed to handle and dump out seed bed trays. A 2011 aerial photo is included as Attachment 11.

During the CEI, Mycogen was inspected as a small quantity generator (SQG) of hazardous waste generating more than 100 kilograms but less then 1,000 kilograms of hazardous waste per month. Mycogen is a Small Quantity Handler (SQH) of Universal Waste accumulating less than 5,000 pounds total of universal waste at any time. Mycogen generates about 80 waste lamps and about 10 pounds of batteries per year. Mycogen appears to generate ignitable hazardous waste (hazardous waste code D001), miscellaneous small quantities of laboratory chemicals (hazardous waste codes F003, D002 and D009) and silver containing wastes (hazardous waste code D011).

FINDINGS AND OBSERVATIONS

1. Waste streams

A Generator Waste Stream Worksheet is included as Attachment 12. The following wastes are generated by Mycogen.

A. Waste solid seed materials

Mr. Lehman said that the facility receives seeds from various production facilities from around the country. The seeds are received in large bags and are split into sub-samples needed for the tests being conducted. The remaining seed and seed solids left from testing are collected and disposed by the company. The seeds are accumulated in 40-bushel fabric tote bags for disposal **(Photo 2, Attachment 7)**. The bags are transported by Mycogen personnel to the company-owned seed production facility at 1562 Taylor Avenue Marshalltown, Iowa. Mr. Lehman estimated about 3,000 pounds of seeds are disposed each month. The seed wastes are combined with the seed production facilities waste seed and are transported for incineration. This incineration is to protect the genetic make-up and to prevent outside use of the seed.

B. Laboratory wastes (Hazardous waste codes D001, D011, D002, F003, and D009)

The major source of the laboratory waste is from the genetics laboratory testing. In the genetics laboratory, the genetic material for the seeds is evaluated. The genetic material of the seeds is extracted and a silver nitrate solution is used to stain the total protein materials on the electrophoresis gels. An MSDS for the silver nitrate solutions is included as Attachment 13. The MSDS shows the material contains silver. The waste solution is collected in a 2-gallon plastic satellite accumulation container under a hood in the genetics laboratory **(Photo 3, Attachment 7)**. The container was not closed. Instead, an open funnel was in the container opening. Failure to store hazardous waste in a closed satellite accumulation container is a violation of 40 CFR 262.34(c)(1)(i) referencing 40 CFR 265.173(a) (**NOPF #5, Attachment 10**). The container was labeled with the words "silver waste." Mr. Lehman estimated that 1-2 gallons per day of this waste is generated. The laboratory waste satellite accumulation container appeared to be structurally sound and compatible with its contents. The waste is collected each day by laboratory staff and deposited into a steel 55-gallon hazardous waste storage container **(Photo 4, Attachment 7),** in the chemical storage room, at the end of the day. This

container is inspected daily. Ms. Heimer supervises all these activities and determines the accumulation dates. It was dated with an accumulation date of 1/19/11 and was labeled as hazardous waste. The hazardous waste storage containers appeared to be structurally sound and compatible with their contents. Mycogen disposes approximately 220 pounds of silver nitrate wastes per month.

Small quantities of other chemicals are occasionally used for specific tests or to clean the laboratory equipment. This results in the generation of wastes containing acetone and methanol and other waste materials. An occasional aerosol paint container is generated from touch-up around the facility. These aerosols containers are included in the laboratory wastes disposal. These wastes are managed as regulated wastes and place in a labeled hazardous waste storage container in the waste storage area. I did not observe any of these wastes at the time of the inspection. Mercury wastes (D009) are occasionally generated from broken thermometers. Mycogen has stopped ordering mercury containing thermometers for the laboratory. These small quantities of waste are lab packed for disposal about once a year. Mycogen uses Veolia ES Technical Solutions (Veolia) of Menomonee Falls, WI to remove and dispose the laboratory wastes. A typical manifest for shipping the laboratory waste is included as Attachment 14. Mycogen disposes approximately 130 pounds of other laboratory wastes in a year. None of the other wastes were present at the time of the inspection.

When the 55-gallon hazardous waste storage containers are full, they are moved to the hazardous waste storage area **(Photo 5, Attachment 7)**. I observed one laboratory hazardous waste storage container that was properly labeled, appeared to be structurally sound and compatible with it's contents. The hazardous waste storage containers are inspected weekly by Ms. Heimer. A copy of the Weekly Inspection Log is included as Attachment 15. I did not check the previous years' logs.

At the conclusion of the inspection, Mr. Lehman and Ms. Heimer escorted me back to the satellite accumulation container under the hood to show me that the container was closed **(Photo 6, Attachment 7)**.

C. Solid non-hazardous laboratory wastes

Mr. Lehman stated that solid non-hazardous waste is generated in the laboratories at the facility. This waste includes rubber gloves, pipettes, paper test strips, immunoassay plates, and plastic test tubes **(Photos 7 & 8, Attachment 7)**. Mycogen has made a public relations decision on handling these wastes. They do not want "medical" appearing wastes going into the county landfill. Mycogen containerizes all these wastes for incineration as non-hazardous wastes by Veolia of Sauget, IL. Mr. Lehman estimated that 400 pounds of non-hazardous waste are generated each month. The 22 non-hazardous waste containers are stored in the center of the warehouse prior to disposal **(Photo 9, Attachment 7).** The containers were in various stages of being filled. Some were full, some were partially full and some were empty. Three manifests from Veolia for the non-hazardous materials are included as Attachment 16.

D. Waste sand

Mr. Lehman stated that waste sand is generated through removal of seed bedding materials from the completion of the germination tests. The sand is collected in the warehouse area. The seed bedding pans are dumped into two small, 1- and 2-cubic yard dumpsters **(Photo 10, Attachment 7)**. When full, these dumpsters are emptied on the waste sand pile in the western yard of the facility **(Photo 11, Attachment 7)**.
Mr. Lehman stated that waste sand is non-hazardous based on process knowledge of the contents. Mr. Lehman stated that waste sand is sometimes used by local contractors for sand treatments of parking lots or driveways. Other than that occasional removal, the waste sand accumulates on the pile. Mr. Lehman estimated that about 5 to 6 tons of sand a month is generated.

E. General office trash

General trash at the facility is placed into dumpsters and removed by Stone Sanitation of Marshalltown, Iowa. General trash includes office waste, food waste, and used seedbed media **(Photo 10, Attachment 7)**. Mr. Leman estimated that approximately 1.5 tons of trash is removed each week. The trash is disposed in the Marshall County Landfill in Marshalltown, Iowa.

F. Waste batteries (Universal Waste)

Universal waste batteries are generated from the various battery-powered equipment in the laboratories. The waste batteries are a mix of alkaline batteries along with nickel-cadmium, lithium and very small lead-acid batteries. Waste batteries are collected in a container located by the office of the Quality Coordinators **(Photo 12, Attachment 7)**. The container is labeled "Universal Waste batteries" and has a date of "3/25/2010" on the label. When called by Mycogen, Veolia of Port Washington, WI, picks up the batteries for recycling with the regular hazardous waste shipments. Mr. Leman said that Mycogen does not generate a lot of waste batteries. One manifest in the last 14 months listed batteries (Attachment 17). On that manifest it listed 5 pounds of acid batteries and 5 pounds of lithium batteries. The laptop computer batteries are recycled locally at a local computer store.

G. Waste fluorescent lamps (Universal Waste)

Mr. Lehman stated that waste fluorescent lamps are generated by changing lamps as needed in the plant. Lamps are collected annually by Veolia of Port Washington, WI. The one most recent manifest for lamps from Veolia is included as Attachment 17. The manifest is dated March 25, 2010 and indicates that a total of 80 fluorescent lamps were removed for recycling.

Mr. Hennings showed me the universal waste storage area. I observed approximately 30 waste fluorescent lamps stored in two cardboard containers in the cold storage room **(Photos 13 and 14, Attachment 7)**. The universal waste storage containers appeared to

be structurally sound and compatible with their contents. Mr. Leman stated that Mycogen considers all waste fluorescent lamps generated to be hazardous waste and that all waste lamps are handled as universal waste.

The containers were labeled as "Waste Fluorescent Bulbs" on the side of each container (**Photo 14, Attachment 7**). Failure to mark waste lamps with the following: "Universal Waste–Lamps" or "Waste Lamps or Used Lamps" is a violation of 40 CFR 273.14(e). (**NOPF #1, Attachment 10**). The labels also did not have a date printed on it that indicated when the universal waste was first placed into the container. Failure to track the accumulation time of Universal Waste Lamps is a violation of 40 CFR 273.15(c) (**NOPF #2, Attachment 10**). The labels were reprinted while I was at the facility, with the words "Waste Fluorescent Lamps" and the accumulation date of 3/26/10 was marked on it by Mr. Hennings (**Photo 15, Attachment 7**). The accumulation date was based on the last pick-up by Veolia.

A Universal Waste Checklist is included as Attachment 18.

H. Waste Tricloroacetic Acid Solution

In the genetic purity laboratory I observed a 1-gallon poly container under an exhaust hood, with a "TCA waste" label (**Photo 16, Attachment 7**). Ms. Heimer stated that a 10% Trichloroacetic acid (TCA) solutions is used to fix the seed proteins into the gel matrix. She said that the waste is collected from the fixing of gel electrophoresis film. The waste solution is then transferred from the 1.5-gallon container into a 70-liter poly container for neutralization (**Photo 17, Attachment 7**). On March 16, 2011, I called Mr. Lehman to confirm the pH of the waste TCA prior to neutralization. Mr. Lehman said he asked the laboratory technician who told him the pH was between 2 and 2.2. In order for waste TCA to be characteristic for corrosivity the pH would need to be 2.0 or less. I did not inspect this waste as hazardous waste. Once the pH is adjusted and measured to be neutral, it is discharged into the City of Marshalltown sanitary sewer system. Ms. Heimer estimated that a maximum100 liters of TCA solution is discharged per day. I asked about an industrial pretreatment agreement with the city for this industrial discharge. Mr. Lehman and Ms. Heimer both thought there was an agreement with the city for this discharge, but they had no idea where it would be kept. A MSDS for the TCA solution is included as Attachment 19. The MSDS does not indicate that the TCA contains hazardous substances.

I. Cardboard, plastic bottles and metal cans for recycling

Cardboard, scrap metal cans and plastic bottles are collected and segregated for recycling at the facility. The recycled materials are placed in or around a 5-cubic yard container for storage (**Photo 18, Attachment 7**). The metal cans and plastic bottles are placed in plastic bags while the cardboard is placed in the metal container. The recycling is picked up once per week by Stone Sanitation of Marshalltown, Iowa for recycling.

2. Additional Findings and Observations

A. Emergency information

I observed that during my inspection none of the telephones had the required emergency information posted. I asked Mr. Lehmann about the emergency information and he stated it was posted on the front door of the office (**Photo 19, Attachment 7**) and at other locations in the building. A copy of the posted diagram is used as the Diagram of the Facility in this report **(Attachment 5).** The emergency contact information for the emergency coordinator is not posted. This is a violation of 40 CFR 262.34(d)(5)(ii)(A) **(NOPF #3, Attachment 10**). I asked Mr. Lehmann on March 30, 2011, if he made arrangements with emergency agencies and he said that Mycogen has contacted Marshalltown fire department. Mycogen is also required to attempt to make arrangements with police and local hospitals. Failure to do this is a violation of 40 CFR 262.34 (d)(4) referencing 40 CFR 265.37 (a)(1) police and (a)(4) local hospitals **(NOPF #6, Attachment 10).** This violation was added to the NOPF on April 1 and
Mr. Lehmann was notified on April 4, 2011.

Additionally, the Mycogen emergency figure that was posted throughout the facility (Attachment 5) does not have the spill control material located on it. This is a violation of 40 CFR 262.34(d)(5)(ii)(B) **(NOPF #4, Attachment 10**).

B. Inspections

Ms. Heimer supplied me with inspection sheet for the hazardous waste storage area. I asked Ms. Heimer if a sheet is completed each time a weekly inspection is conducted. Ms. Heimer said that if an inspection is conducted it is included on the sheet. An example of the most recent inspection sheet is included as Attachment 15.

I reviewed the inspection sheet for this year and it had no discrepancies. I did not review previous years sheets.

C. Hazardous waste manifests

While inspecting the Mycogen facility Mr. Lehmann produced the hazardous waste manifests for the last three years for Mycogen facility. I reviewed the 31 manifests for the last three years and summarized all the shipments for the 14 months to establish a pattern for shipping of hazardous wastes. All the manifests appeared to be in compliance with applicable regulations.

D. Training

During the inspection I observed that procedures appeared to be in place regarding management of hazardous waste. For example, inspection logs were being completed for inspections actually conducted and containers of hazardous waste located in the

hazardous waste storage area were properly labeled and dated. In addition it appears that the universal wastes were being handled and managed appropriately.

3. RCRA Status

From the information I received from the facility and from my visual inspection, it appears that Mycogen is a SQG of characteristic hazardous waste codes D001, D002, D009, D011 and F003. I reviewed hazardous waste manifests and facility calculations of hazardous waste generation. I examined all 31 of the manifest for the last three years. I used the 11 hazardous waste manifests generated since January 2010 to estimate the generation rate. Based on my findings I determined that the facility generates about 230 pounds of hazardous waste (laboratory waste) per month. Mycogen also is a Small Quantity Handler of universal waste lamps and batteries. Mycogen generates about 80 waste lamps and 10 pounds of waste batteries per year.

John H Parks

John H. Parks, RG
Engineering Geologist

Date April 4, 2011

Attachments:

1. Handler Information Report (1 page)
2. Region 7 Multimedia Screening Checklist (1 page, both sides)
3. Drive-by and Site Entry Checklist (1 page)
4. Facility Background Worksheet (2 pages)
5. Diagram of the Facility (1 page)
6. Confidentiality Notice (1 page)
7. Photo Log (22 pages)
8. Exit Briefing Checklist (1 page)
9. Receipt for Documents and Samples (1 page)
10. Notice of Preliminary Findings (2 pages)
11. 2009 Aerial Photo (1 page)
12. Generator Waste Stream Worksheet (3 pages)
13. Material Safety Data Sheet for Silver Nitrate Solution (6 pages)
14. Hazardous Waste Manifests for Laboratory Wastes (4 pages)
15. <90-Day Hazardous Waste Container Storage Area Inspection Form (1 page)
16. Non-hazardous Waste Manifests (2 pages)
17. Hazardous Waste Manifests for Universal Wastes (1 page)
18. Universal Waste Checklist (2 pages)
19. Material Safety Data Sheet for Trichloroacetic Acid Solution (6 pages)

Attachment 1

Handler Information Report

HANDLER INFORMATION REPORT

January 19, 2011

Procedures for Inspectors/Investigators/etc. performing Site Visits

Present the Facility representative with a copy of their:

- Handler Information Report (attached)
- Copy of the current Notification Form (attached)
- Copy of the current Notification Booklet (attached)

Our instructions to them are printed on their Handler Information Report - and should be self explanatory. If the facility wants to revise their Handler Information Report, they can do so and mail it back to EPA - or have the inspector deliver it.

If during the course of the site visit, the inspector/investigator becomes aware of any changes which should be made to the information printed on this form, please make the corrections and return the form to: Beth Koesterer, AWMD/WEMM.

EPA RCRA ID Number: IAR000500439

Name of Company/Site: MYCOGEN SEEDS QUALITY LAB
Location of Site: 208 LEO ST
MARSHALLTOWN, IA 50158
MARSHALL County

Land Type: Private

NAICS: 541712 - RESEARCH AND DEVELOPMENT IN THE PHYSICAL, ENGINEERING, AND LIFE SCIENCES (EXCEPT BIOTECHNOLOGY)

Mailing Address: 208 LEO ST
MARSHALLTOWN, IA 50158

Site Contact: ~~CRAIG KLINEFELTER~~ John Lohman
Job Title:
Address: 208 LEO ST
MARSHALLTOWN, IA 50158
E-mail:
Phone Number: 641-754-1579 76

Current Owner of Site: EARL SUTTON
Phone Number: (515)289-2422
Owner Type: Private

Current Operator of Site: EARL SUTTON
Phone Number: (515)289-2422
Operator Type: Private

TYPE(S) OF REGULATED ACTIVITY: Federal Small Quantity Generator

Hazardous Wastes Handled: D001 D011 F003 D002 U W

I 03/03/09 2 1st N 05/01/01 N 10/17/08 2

Certified by State/EPA on 03/03/09 by
JIM L LYNCH 03/03/09
NOWCC/SEE INVESTIGATOR

Date of Site Visit: 02/23/2011

Name of Inspector (Please print): John H Parks

(Check one): ❑ EPA R7 ENSV ☒ EPA R7 Contractor ❑ NOWCC/SEE Investigator

Signature of Inspector: John H Parks

Attachment 1 page 1 of 1

Attachment 2

Region 7 Multimedia Screening Checklist

Forward To: EJ ☐ EPCRA / RMP / TSCA ☑ CWA ☑ Wetlands ☐ UIC ☐ PWS ☐ CAA / CFC ☐ RCRA ☑ UST ☐ SPCC ☐

REGION VII MULTIMEDIA SCREENING CHECKLIST

Facility Name: MyCogen Seeds Quality Lab
Facility Ownership: Private
Street: 208 Leo Street
City: Marshalltown State: IA Zip: 50158
Phone: 913-641-754-1576 Facility Contact: Jon Lehman
Number of Employees: 15 FT 15 Temp Work Hours/Shifts 6:30-4:30 Facility Subject to OSHA regulations Yes ☑ No ☐

Inspector John H Parks
Primary Media: RCRA
Inspector Phone Ext.: 913-307-0046
Date: 03/23/2011
SIC/NAICS Code 541712

Main facility activity, major process chemical(s) & description: Analytical laboratory

(**Check all that apply**): painting/coating (water-based ☐, solvent-based ☐), printing ☐, reacting ☐, formulating ☐, distilling ☐, water treatment ☐, refrigeration ☐, manufacturing ☐, parts washers/degreasing (water-based ☐, halogenated-based ☐, non-halogenated-based ☐), combustion (boiler, furnaces, oxidizers) ☐ plating (chrome ☐, other seed germination Laboratory

ENVIRONMENTAL JUSTICE (Note: Forward to EJ if a concern is identified during your inspection)

1. Is the facility located in an apparent low income area (e.g., with many abandoned and dilapidated properties)? No ☑ (stop) Yes ☐
   If yes, is facility less then 1000 feet from nearest routinely occupied property (house, school, etc.)? No ☐ (stop) Yes ☐ ***Forward to EJ***

EMERGENCY PLANNING & COMMUNITY RIGHT TO KNOW ACT (EPCRA) & TOXIC SUBSTANCE CONTROL ACT (TSCA)

1. Did facility file a Tier II report with fire department, Local & State Emergency Planning Committee? Yes ☐ No ☑ ***Forward to EPCRA***
2. Did facility manufacture, import, or process (formulate, blend, package) >25,000 lbs of a chemical or >100 lbs of a Persistent Bioaccumulative Toxin (lead, mercury, or polycyclic aromatic compounds) at any time over the last 5 years? No ☑ (stop) Yes ☐ ***Forward to EPCRA***
3. Has the facility: ***If any box in question 3 is marked - Forward to EPCRA***
   a. Stored ≥500 lbs of ammonia ☐, ≥100 lbs of chlorine ☐, or ≥10,000 lbs of an industrial chemical ☐, at any time over the last 2 years? ☐
   b. Stored ≥10,000 lbs of pressurized flammable material (propane, methane, butane, pentane, etc.) at any time over the last 2 years? ☐
   c. Used ≥10,000 lbs of ammonia ☐, chlorine ☐, halogenated solvents ☐, solvent-based paints ☐, or solvents ☐, or nitrated compound, over the last calendar year? ☐
   d. Generated ≥ one half pound of metal dusts, fumes, or metal turnings, over the last calendar year? ☐
4. Does the facility have any oil filled electrical equipment No ☑ (stop) Yes ☐ ***Forward to TSCA and ask*** Has facility tested oil filled equipment to determine PCB content; No ☐ Yes ☐ number containing PCBs greater than 50 ppm _____ and percent of all equipment tested _____. Is equipment leaking (including wet or weeping equipment)? No ☐ Yes ☐ – ***Get Photo***

CLEAN WATER ACT (CWA) - National Pollution Discharge Elimination System (NPDES), Industrial Pretreatment, Storm Water, & Wetlands

1. Does the facility discharge any wastewater to storm sewers, surface water, or the land? No ☑ (stop) Yes ☐
   If yes, are all wastewater discharges permitted? Yes ☐ No ☐ ***Forward to CWA***
2. Does the facility have process wastewaters that are discharged to a city POTW (Publicly Owned Treatment Works)? No ☑ (stop) Yes ☑
   If yes, are the discharges permitted by: State? ☐, City? ☑ – If yes, Stop here. No ☐ ***Forward to CWA***
   If yes, does the city have a state or EPA approved pretreatment program? Yes ☐ No or Don't Know ☑ ***Forward to CWA***
3. During rainfall events, can storm water carry pollutants from manufacturing, processing, storage, disposal, shipping and receiving areas, or from construction sites >1 acre, to storm sewers or surface water? No ☑ (stop) Yes ☐
   If yes, does the facility have an NPDES permit for these storm water discharges? Yes ☐ No ☐ ***Forward to CWA***
4. Did you see any wastewater discharges not identified by the facility? No ☑ (stop) Yes ☐ - Identify location, time, appearance of discharge: _____ (***Get Photo***) ***Forward to CWA***
5. Does the facility have any wetland areas (e.g. streams, ponds, or temporarily wet areas)? No ☑ (stop) Yes ☐
   If yes, have any wetland areas been dredged, filled, channelized, dammed, or had gravel removed from them within the last 5 years? No ☐ (stop) Yes ☐ - Identify location and timeframe _____ (***Get Photo***) ***FWD to Wetlands***

SAFE DRINKING WATER ACT (SDWA) - Underground Injection Control (UIC) & Public Water System (PWS)

1. Does facility discharge any liquids to the subsurface (septic systems, disposal wells, cesspools, etc.)? No ☑ (stop) Yes ☐ ***Forward to UIC***
   If yes, do these liquid wastes consist of sanitary wastewater only? Yes ☐ No ☐
2. Does facility provide drinking water to 25 people or more from its own source (private well, pond, etc)? No ☑ (stop) Yes ☐ ***Forward to PWS***
   If yes, does the facility test or monitor its drinking water in order to comply with state regulations? Yes ☐ No ☐

CLEAN AIR ACT (CAA) and CFCs

1. Do you see any dense, non-steam, smoke or dust emissions leaving the facility property? No ☑ Yes ☐ ***Forward to CAA***
   Source______________________________ (*Get Photo*)
2. Does the facility have any new air pollution emitting equipment that was constructed or installed in the past 5 years? No ☐ (stop) Yes ☐
   If yes, is equipment permitted? Yes ☐ No ☑ ***Forward to CAA*** *Describe:*______________________________
3. Does the facility have any cooling units that contain >50 lbs of refrigerant? No ☑ (stop) Yes ☐ ***Forward to CFC***
   If yes, are these units: Self-serviced? ☐ Contract Serviced? ☐ - Service Company:______________________________
4. Does the facility have a refrigeration process that contains more than 10,000 lbs of ammonia ? No ☑ (stop) Yes ☐ ***Forward to EPCRA/RMP***
5. Does the facility service motor vehicle air conditioning systems? No ☑ (stop) Yes ☐ ***Forward to CFC***

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) and UNDERGROUND STORAGE TANKS (UST)

1. Does the facility generate more than 30-gallons (220 lbs./100kg) of hazardous waste per month or at any one time? No ☐ (stop) Yes ☑
   If yes, does facility have an EPA Hazardous Waste Identification Number? Yes ☑ (stop) No ☐ ***Forward to RCRA***
2. Is hazardous waste treated ☐ , stored >90-days ☐, burned ☐ , land filled ☐ , put in surface impoundments ☐ or waste piles ☐ ?
   No ☑ (stop) Yes ☐ If yes, is the facility permitted for above described activity? Yes ☐ No ☐ ***Forward to RCRA***
3. Did you see or does the facility have any large quantities of materials **that the facility claims to be non-hazardous waste material** (>10 drums, roll-offs, waste piles, etc. – exclude clean office trash, cardboard, & packaging type wastes)? No ☑ (stop) Yes ☐

Material Claimed To Be Non-Hazardous	How does the facility know these wastes are non-hazardous?		
______________________	Testing, industry or manuf. info.., MSDS, etc. ☐ ;	None available ☐	***Forward to RCRA***
______________________	Testing, industry or manuf. info.., MSDS, etc. ☐ ;	None available ☐	***Forward to RCRA***
______________________	Testing, industry or manuf. info.., MSDS, etc. ☐ ;	None available ☐	***Forward to RCRA***
______________________	Testing, industry or manuf. info.., MSDS, etc. ☐ ;	None available ☐	***Forward to RCRA***
______________________	Testing, industry or manuf. info.., MSDS, etc. ☐ ;	None available ☐	***Forward to RCRA***

4. Did you see any leaking hazardous waste containers, drums, or tanks? No ☑ Yes ☐ ***Forward to RCRA***
   Describe:______________________________ (*Get Photo*)
5. Did you see any signs of spills or releases (e.g., dead or stressed vegetation, stains, discoloration)? No ☑ Yes ☐ ***Forward to RCRA***
   Describe:______________________________ (*Get Photo*)
6. Did you see any chemical or waste handling practices that concern you (access to children/public)? No ☑ Yes ☐ ***Forward to RCRA &***
   EPCRA Describe:______________________________ (*Get Photo*)
7. Does the facility have any past or present underground petroleum product or hazardous material tanks? No ☑ Yes ☐ ***Forward to UST***
8. Does the facility have any underground fuel tanks for emergency generators? No ☑ Yes ☐ ***Forward to UST***

SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN (SPCC)

1. Does the facility have any aboveground oil tanks (petroleum, synthetic, animal, fish, vegetable), with an aggregate volume >1,320 gallons?
   No ☑ (stop) Yes ☐ - Does the facility have a certified SPCC Plan? Yes ☐ No ☐ ***Forward to SPCC***
   If yes, are there secondary containment systems for the tanks? Yes ☐ No ☐ ***Forward to SPCC***
   If yes, are any tanks leaking where oil could reach waters of the State or U.S.? No ☐ Yes ☐ (*Get Photo*) ***Forward to SPCC***

ENVIRONMENTAL MANAGEMENT SYSTEMS (EMS)

1. Does your facility have an EMS? No ☑ Yes ☐
2. Is the facility's EMS ISO 14001 certified? No ☑ Yes ☐

**** PLEASE TAKE PHOTOS TO DOCUMENT POTENTIAL PROBLEMS***

Version 08.23.05a GRAY SHADED AREAS INDICATE ITEMS **YOU** NEED TO **LOOK** FOR DURING VISUAL INSPECTION

Attachment 3

Drive-by and Site Entry Checklist

Appendix 1-3

Facility: Mycogen Seed QA Lab Date: Feb 23, 2011 Arrival time: 8:35

DRIVE-BY

1. Drive-by conducted from public right-of-way? ☒Yes ☐No

2. Determine the direction "North" with respect to the facility and provide a brief sketch of the layout and orientation (as can be viewed from the public right-of-way):

Facility map secured from facility

3. Obvious concerns visible from public right-of-way (photos)? ☐Yes ☒No

- Containers	- Tanks	- Processing Equipment	- Loading Areas
- Unloading Areas	- Security Devices	- Open Drums	- Stressed Vegetation
-Unusual Staining	- Unusual Odors	- Obvious Discharges	- Improper Disposal
- Safety Concerns	- Other Concerns		

Appendix 1-4 SITE ENTRY AND INBRIEFING

1. ☒Used main entrance ☑Entered during normal operating hours ☐Excessive delays (>15 minutes - denial of access?) - ☐No

2. Facility Representative(s): ~~John~~ Jon Lehman Title: Quality Control Leader
Traci Heimer Title: Quality Coordinator
Randy Hennings Title: Quality Coodinator

3. Does representative have intimate knowledge of all waste management practices? ☑Yes ☐No

How long in position? 3 mo.

4. Introduction:
- ☑Presented credentials
- ☑Explained responsibility to provide accurate information and provided copies of Section 1001 and 1002 U.S.C. to facility
- ☑Verified presence at correct facility (checked address/I.D. #)
- ☑Explained authority to conduct inspection (Section 3007 of RCRA)
- ☑Explained the purpose, scope, and order of the inspection
- ☑Completed Multimedia screening checklist
- ☑Explained documentation process - worksheets, checklists, photos, notes, statements, etc
- ☑Provided SBRFA
- NA ☐Obtained GPS reading
- ☑Explained facility's right to claim CBI

5. Was full access granted? ☑Yes ☐ By facility representative or Other (name): Jon Lehman

☐No - Access denied. Name of person denying access: _____

Time of denial: _____

Reason for denial, or limitations placed on access:

Attachment 4

Facility Background Worksheet

Appendix 1-5 FACILITY BACKGROUND WORKSHEET

1. Site History:

Date facility began operating: 1998 Number of employees: 15

Number of shifts/hour worked: 1 - 6:30 am - 4:30 Number of days worked per week: 5

Size (sq. ft., how divided): = 13,000 sq ft

Property owner and facility operator the same? ☑ Yes ☐ No

2. Major products or services provided: seed testing laboratory

3. Major raw materials used: seed samples, analytical chemical for testing sand

4. Major manufacturing or processing operations which generate waste streams: (provide brief description)

Operation/Process	Waste Stream(s)
seed samples	solid. seed materials test strips wet chemicals. sand
Office wastes	dumpster
water wastes	to POTW
Universal wastes	batteries lamps
Sand.	to waste pile
recycled materials	cardboard, cans, plastic bottles

5. Complete a Generator Waste Stream Worksheet and /or Off-Site Waste Stream Worksheet for the waste streams noted above and then finish this form.

6. Verified/compared above information with facility Notification Form: ☑Yes ☐No

7. **GENERATOR STATUS:** (based on records review)

☐Non-generator
☐CE (0-100kg/mo or 1 kg/mo acute waste and accumulate <1000 kg or 1kg acute waste or 100 kg of acute spill residue)
☑SQG (100-1000kg/mo and accumulate<6000kg)
☐LQG (>1000kg/mo)

Is facility's status solidly within above category? ☑Yes ☐No
(If not carefully verify status and document)
reviewed 11 manifests for the last 14 months. 3+ years on file.

8. **TSD STATUS**: ☐Treatment ☐Storage ☐Disposal

Note: Types of units, number of units, capacities, processes, etc:

NA

9. Resolved questions from Pre-Inspection Worksheet? ☐Yes ☐No ☐No Questions

NA

10. Resolved compliance officer's questions from Pre-Inspection Worksheet? ☐Yes ☐No ☐No Questions

NA

11. Requested site map or diagram to identify all observations? ☑Yes ☐None Available

Appendix 1-6 GENERATOR WASTE STREAM WORKSHEET

1. **WASTE STREAM:** _____

FACILITY DETERMINATION: ☐Hazardous ☐Non-hazardous ☐Not done ☐Inadequate

WASTE CODES: _____

DETERMINATION METHOD: ☐Product knowledge ☐Process knowledge ☐Testing

Documentation: _____

GENERATING PROCESS: _____

GENERATION RATE: _____

ON-SITE MANAGEMENT: Satellites ☐Visually inspected Storage ☐Visually inspected

_____

_____

OFF-SITE MANAGEMENT/DISPOSITION: _____

_____

2. **WASTE STREAM:** _____

FACILITY DETERMINATION: ☐Hazardous ☐Non-hazardous ☐Not done ☐Inadequate

WASTE CODES: _____

DETERMINATION METHOD: ☐Product knowledge ☐Process knowledge ☐Testing

Documentation: _____

GENERATING PROCESS: _____

GENERATION RATE: _____

ON-SITE MANAGEMENT: Satellites ☐Visually inspected Storage ☐Visually inspected

_____

_____

OFF-SITE MANAGEMENT/DISPOSITION: _____

_____

3. **WASTE STREAM:** _____

FACILITY DETERMINATION: ☐Hazardous ☐Non-hazardous ☐Not done ☐Inadequate

WASTE CODES: _____

DETERMINATION METHOD: ☐Product knowledge ☐Process knowledge ☐Testing

Documentation: _____

GENERATING PROCESS: _____

GENERATION RATE: _____

ON-SITE MANAGEMENT: Satellites ☐Visually inspected Storage ☐Visually inspected

_____

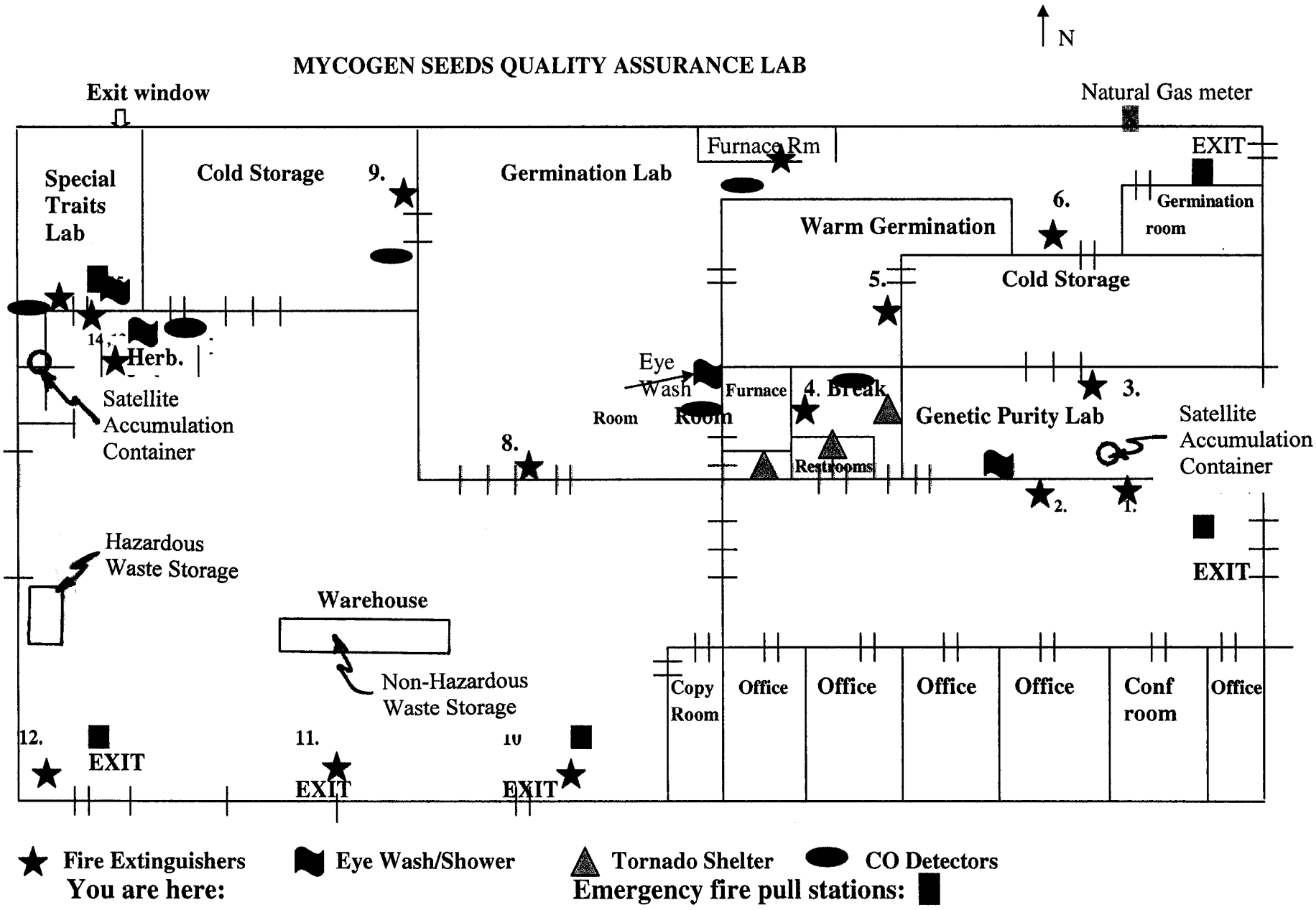
_____

OFF-SITE MANAGEMENT/DISPOSITION: _____

_____

Attachment 5

Diagram of the Facility



Attachment 6

Confidentiality Notice

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
CONFIDENTIALITY NOTICE

Facility Name Mycogen Seeds Quality Lab	
Facility Address 208 Leo Street, Marshalltown, IA 50158	
Inspector (print) John H Parks	
U.S. EPA, Region VII, 901 N. 5th St., Kansas City, KS 66101	Date 02/23/2011

The United States Environmental Protection Agency (EPA) is obligated, under the Freedom of Information Act, to release information collected during inspections to persons who submit requests for that information. The Freedom of Information Act does, however, have provisions that allow EPA to withhold certain confidential business information from public disclosure. To claim protection for information gathered during this inspection you must request that the information be held CONFIDENTIAL and substantiate your claim in writing by demonstrating that the information meets the requirements in 40 CFR 2, Subpart B. The following criteria in Subpart B must be met:

1. Your company has taken measures to protect the confidentiality of the information, and it intends to continue to take such measures.

2. No statute specifically requires disclosure of the information.

3. Disclosure of the information would cause substantial harm to your company's competitive position.

Information that you claim confidential will be held as such pending a determination of applicability by EPA.

I have received this Notice and DO NOT want to make a claim of confidentiality at this time.	
Facility Representative Provided Notice (print) Jon Lehman	Signature/Date Jon Lehman 2/23/11

I have received this Notice and DO want to make a claim of confidentiality.	
Facility Representative Provided Notice (print)	Signature/Date

Information for which confidential treatment is requested;

(Rev: 11/15/99)

Attachment 7

Photo Log

Photo Log

Facility Name/City & State: Mycogen Seeds Quality Lab., Marshalltown, IA
Facility ID#: IAR000500439
Inspection Date: February 23, 2011
Photographer: John Parks
Type of Camera: Canon PowerShot A590IS
Digital Recording Media: SD Flash Card
All digital photos were copied by: John Parks

Report Photo #	Photographer	Date	Approx. Time	File Name	Description
1	John Parks	02/24/11	8:04 am	IMG_019.jpg	Street View of Mycogen Facility. Facing west.
2	John Parks	02/23/11	11:23 am	IMG_010.jpg	View of two 40-bushel fabric totes of waste seeds. Facing west.
3	John Parks	02/23/11	10:57 am	IMG_005.jpg	Satellite 2-gallon container of silver nitrate wastes. The container appeared to be structurally sound and compatible with its contents. Note: the container is not properly closed. Facing southwest.
4	John Parks	02/23/11	11:05 am	IMG_007.jpg	Satellite accumulation 55-gallon container in the chemical storage room. The container has an accumulation start date of 1/19/2011. The container appeared to be structurally sound and compatible with its contents. Facing southwest This container was about two-thirds full. The other container is empty. Facing south.
5	John Parks	02/23/11	11:10 am	IMG_008.jpg	Hazardous waste storage area. One full 55-gallon container of laboratory waste. The container was dated (1/19/2011), closed, labeled "Hazardous Waste", and in good condition. The other container was empty. Facing south.
6	John Parks	02/23/11	1:43 pm	IMG_017.jpg	Satellite 2-gallon container of silver nitrate waste shown in Photo #3 after it was closed. Note: the container is properly closed. Facing southwest.

Report Photo #	Photographer	Date	Approx. Time	File Name	Description
7	John Parks	02/23/11	10:42 am	IMG_002.jpg	Example 7-gallon container of non-hazardous waste generated by Mycogen. The container appeared to be structurally sound and compatible with its contents. Facing north.
8	John Parks	02/23/11	11:36 am	IMG_013.jpg	Example container of non-hazardous waste generated by Mycogen. The container appeared to be structurally sound and compatible with its contents. Facing west.
9	John Parks	02/23/11	10:44 am	IMG_003.jpg	Twenty-two non-hazardous waste storage containers in warehouse. Some were full, some being filled and some were empty. The containers appeared to be structurally sound and compatible with their contents. Facing southwest.
10	John Parks	02/23/11	10:37 am	IMG_001.jpg	One and two cubic yard waste sand dumpsters with the 3-cubic yard general trash dumpster in warehouse area. The containers appeared to be structurally sound and compatible with their contents. Facing southwest.
11	John Parks	02/23/11	11:41 am	IMG_015.jpg	Waste sand pile in back lot of facility. Facing west.
12	John Parks	02/23/11	11:16 am	IMG_009.jpg	Universal waste battery recycling container in hallway. The Universal Waste label says "Batteries" and is dated. The container appeared to be structurally sound and compatible with its contents. Facing south.
13	John Parks	02/23/11	11:28 am	IMG_011.jpg	Universal waste lamp storage in cold storage area. The containers appeared to be structurally sound and compatible with their contents. Note: not properly labeled. Facing southeast.
14	John Parks	02/23/11	11:29 am	IMG_012.jpg	Close-up of universal waste lamp storage label, from Photo # 13, in cold storage area. Note: not properly labeled. Facing southeast.

Report Photo #	Photographer	Date	Approx. Time	File Name	Description
15	John Parks	02/23/11	1:44 pm	IMG_018.jpg	Close-up of revised universal waste lamp storage label in cold storage area. Labels replaced the ones from Photos #13 & #14. Both containers were relabeled. Facing southeast.
16	John Parks	02/23/11	10:51 am	IMG_004.jpg	Waste 1.5-gallon TCA container under hood in genetics laboratory. The container appeared to be structurally sound and compatible with its contents. Facing north.
17	John Parks	02/23/11	11:02 am	IMG_006.jpg	Seventy-liter waste TCA neutralization container in genetics laboratory. The container appeared to be structurally sound and compatible with its contents. Note: drain hose into sanitary sewer drain. Facing south.
18	John Parks	02/23/11	11:40 am	IMG_014.jpg	Recycling storage area. Cardboard is placed in the 3-cubic yard dumpster, while plastic jugs and metal cans are placed in plastic bags. Facing northwest.
19	John Parks	02/23/11	12:30 pm	IMG_016.jpg	Current Emergency Phone Number sign by front office. The sign lacks the emergency managers contact information and the locations of fire extinguishers and spill control material. Facing east.

Photo #1

Street View of Mycogen Facility. Facing west.

Photo #2

View of two 40-bushel fabric totes of waste seeds. Facing west.

Photo #3

Satellite 2-gallon container of silver nitrate wastes. The container appeared to be structurally sound and compatible with its contents. Note: the container is not properly closed. Facing southwest.

Photo #4

Satellite accumulation 55-gallon container in the chemical storage room. The container has an accumulation start date of 1/19/2011. The container appeared to be structurally sound and compatible with its contents. Facing southwest This container was about two-thirds full. The other container is empty. Facing south.

Photo #5

Hazardous waste storage area. One full 55-gallon container of laboratory waste. The container was dated (1/19/2011), closed, labeled "Hazardous Waste", and in good condition. The other container was empty. Facing south.

Photo #6

Satellite 2-gallon container of silver nitrate waste shown in Photo #3 after it was closed. Note: the container is properly closed. Facing southwest.

Photo #7

Example 7-gallon container of non-hazardous waste generated by Mycogen. The container appeared to be structurally sound and compatible with its contents. Facing north.

Photo #8

Example container of non-hazardous waste generated by Mycogen. The container appeared to be structurally sound and compatible with its contents. Facing west.

Photo #9

Twenty-two non-hazardous waste storage containers in warehouse. Some were full, some being filled and some were empty. The containers appeared to be structurally sound and compatible with their contents. Facing southwest.

Photo #10

One and two cubic yard waste sand dumpsters with the 3-cubic yard general trash dumpster in warehouse area. The containers appeared to be structurally sound and compatible with their contents. Facing southwest.

Photo #11

Waste sand pile in back lot of facility. Facing west.

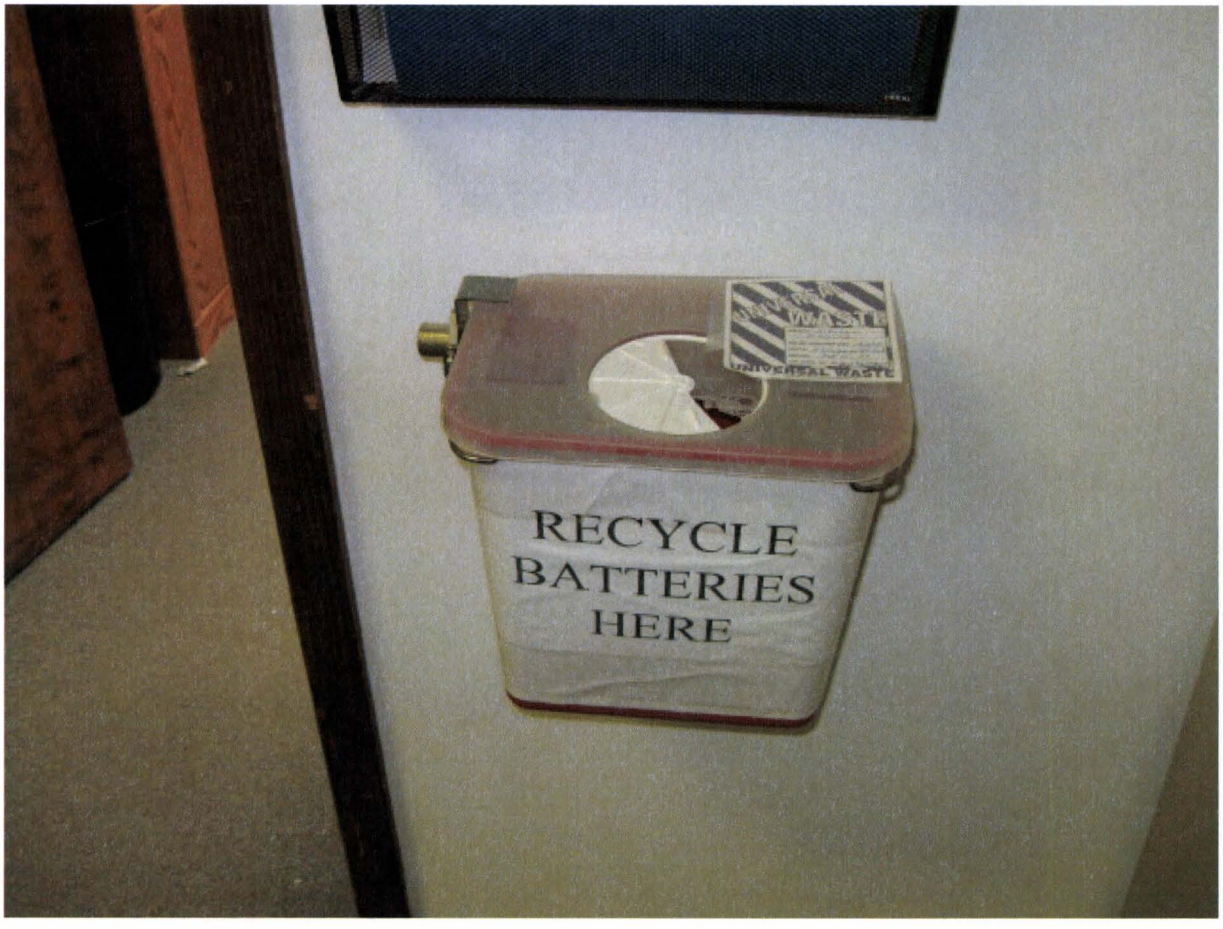


Photo #12

Universal waste battery recycling container in hallway. The Universal Waste label says batteries and is dated. The container appeared to be structurally sound and compatible with its contents. Facing south.

Photo #13

Universal waste lamp storage in cold storage area. The container appeared to be structurally sound compatible with its contents. Note: not properly labeled. Facing southeast.

Photo #14

Close-up of universal waste lamp storage label, from Photo # 13, in cold storage area. Note: not properly labeled. Facing southeast.

Photo #15

Close-up of revised universal waste lamp storage label in cold storage area. Labels replaced the ones from Photos #13 & #14. Both containers were relabeled. Facing southeast.

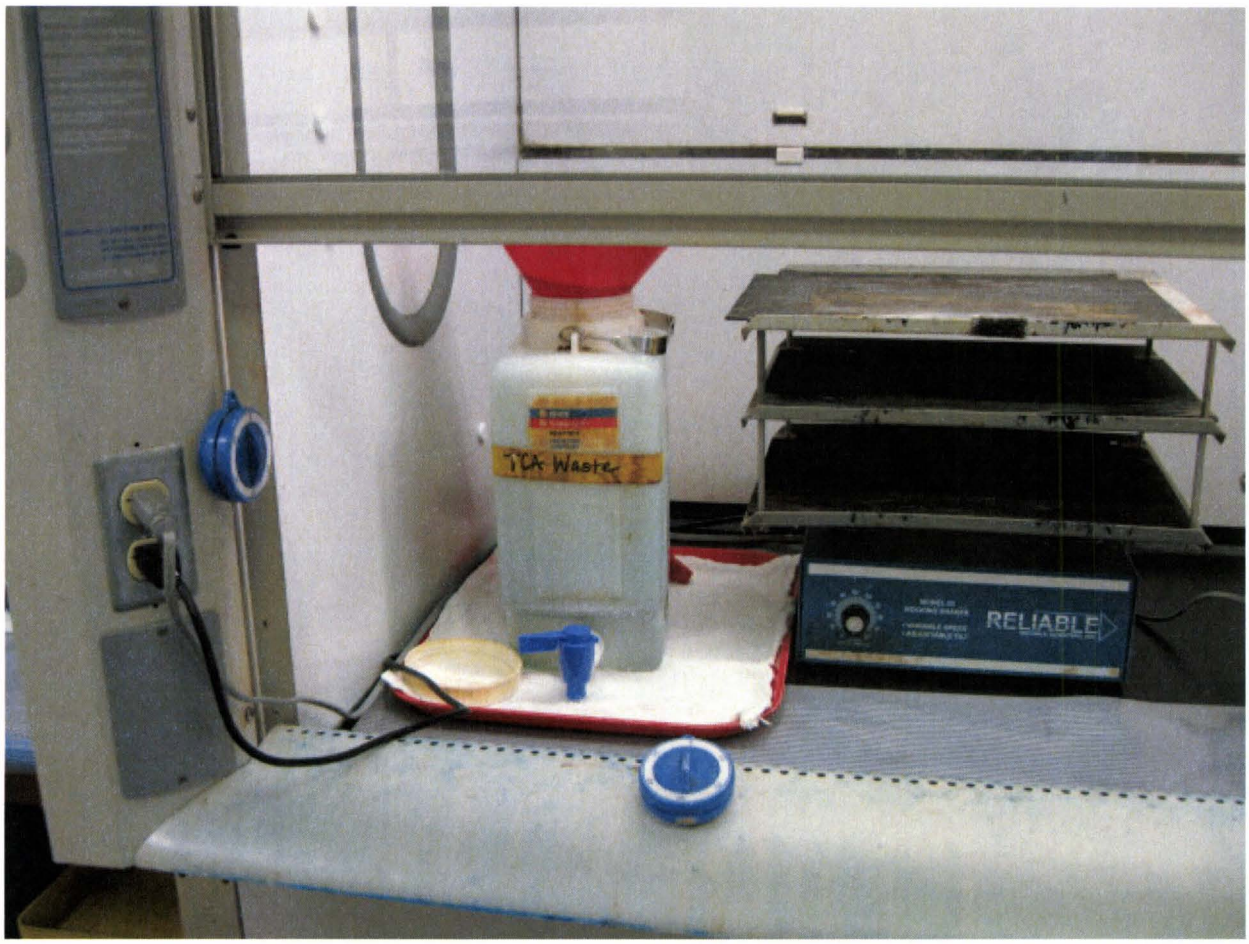


Photo #16

Waste 1.5-gallon TCA container under hood in genetics laboratory. The container appeared to be structurally sound, compatible with its contents. Facing north.

Photo #17

Seventy-liter waste TCA neutralization container in genetics laboratory. The container appeared to be structurally sound, compatible with its contents. Note: drain hose into sanitary sewer drain. Facing south.

Photo #18

Recycling storage area. Cardboard is placed in the 3-cubic yard dumpster, while plastic jugs and metal cans are placed in plastic bags. Facing northwest.

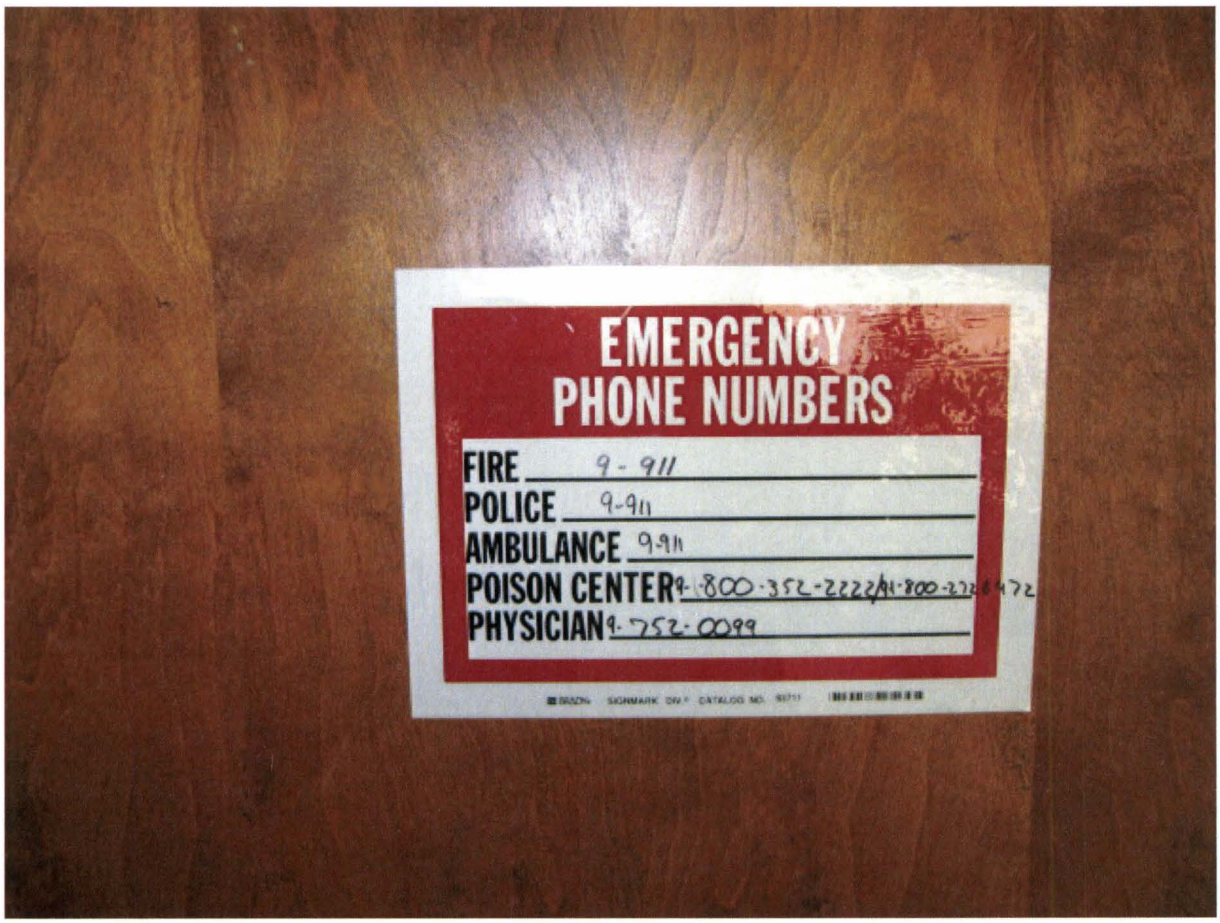


Photo #19

Current Emergency Phone Number sign by front office. The sign lacks the emergency managers contact information and the locations of fire extinguishers and spill control material. Facing east.

Attachment 8

Exit Briefing Checklist

Appendix 1-10 EXIT BRIEFING

1. Reviewed all data collected and documented all concerns or violations? ☑ Yes ☐ No
   - Location of the violation, type and amount of waste involved, time frame, frequency, specific dates & when first started occurring.
   - Illegal units-unit location (diagram/picture), dimensions, conditions, construction material, gradient of the base (for spills), other information.
   - Illegal disposal-how, when (each occurrence), where sent or disposed of, how shipped, who shipped, when shipped/disposed of, quantity.

☑ Identified/verified violations from previous inspection were corrected (if applicable)
☑ Addressed all unresolved inspection related issues
☑ Summarized findings and observations for the facility representatives

NOPF SP NOV issued? ☑ Yes ☐ No ☐ Violations clearly identified and explained, including: circumstances, location, and applicable regulations

☑ Explained the importance of a timely (14 day) and adequate response
☑ Explained that findings and observations are based on your current knowledge of RCRA and that the final findings may differ
☑ Explained that compliance officer will make final compliance decisions and that all compliance questions should be directed toward them
☑ Explained that recommendations provided are for informational purposes only and DO NOT require specific actions by the facility
☑ Provided facility with CBI form
☑ Prepared Document Receipt form

3. Specific information requested from facility? ☐ Yes ☑ No

4. Facility appears to have awareness of RCRA regulations? ☑ Yes ☐ No

5. Facility has its own environmental staff? ☑ Yes ☐ No

6. Facility has copy of applicable regulations? ☐ Yes ☑ No

7. Attitude and demeanor of facility representative(s); ☑ OK ☐ Not OK

8. Notes/Observations: Attendees: John H Parks
Jon Lehman

Tank #2 – Name & location of tank:_____

Person responsible for tank area:_____

Age of tank when it first stored/treated/held a hazardous waste:_____

How was age verified?_____

Tank design capacity:_____ Type of waste in tank:_____

Volume currently in the tank:_____ How was volume verified?_____

Length of time in tank: ☐ <90 day ☐ <180 day ☐ <270 day ☐ I.S. ☐ Permit

Photos taken? ☐ YES ☐ NO Photo numbers:_____

Area noted on map or diagram: ☐ YES ☐ NO

Tank #3 – Name & location of tank:_____

Person responsible for tank area:_____

Age of tank when it first stored/treated/held a hazardous waste:_____

How was age verified?_____

Tank design capacity:_____ Type of waste in tank:_____

Volume currently in the tank:_____ How was volume verified?_____

Length of time in tank: ☐ <90 day ☐ <180 day ☐ <270 day ☐ I.S. ☐ Permit

Photos taken? ☐ YES ☐ NO Photo numbers:_____

Area noted on map or diagram: ☐ YES ☐ NO

Tank #4 – Name & location of tank:_____

Person responsible for tank area:_____

Age of tank when it first stored/treated/held a hazardous waste:_____

How was age verified?_____

Tank design capacity:_____ Type of waste in tank:_____

Volume currently in the tank:_____ How was volume verified?_____

Length of time in tank: ☐ <90 day ☐ <180 day ☐ <270 day ☐ I.S. ☐ Permit

Photos taken? ☐ YES ☐ NO Photo numbers:_____

Area noted on map or diagram: ☐ YES ☐ NO

Attachment 9

Receipt for Documents and Samples

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RECEIPT FOR DOCUMENTS AND SAMPLES

Facility Name
Mycogen Seeds Quality Lab.
Facility Address
208 Leo Street, Marshalltown, IA 50158

Documents Collected? YES ✓ (list below) NO___

Samples Collected? YES___ (list below) NO ✓ Split Samples: YES___ NO___

Documents/Samples were: 1)Received no charge ✓ 2)Borrowed___ 3)Purchased___

Amount Paid: $_____ Method: Cash___ Voucher___ To Be Billed___

The documents and samples described below were collected in connection with the administration and enforcement of the applicable statute under which the information is obtained.

==========

Receipt for the document(s) and/or sample(s) described below is hereby acknowledged:

1 - Emergency Figure
1 - Storage Area Inspection Form
6 - manifest forms

Facility Representative (print)	Signature/Date
Jon Lehman	Jon Lehman 2/23/10
Inspector (print)	**Signature/Date**
John H Parks	John H Parks 2/23/2011
U.S. EPA, Region VII, 901 N. 5th Street, Kansas City, KS 66101	

(rev:1/20/93)

Attachment 10

Notice of Preliminary Findings

NOTICE OF PRELIMINARY FINDINGS

FACILITY NAME: Mycogen Seeds Quality Lab
ADDRESS: 208 Leo Street
Marshalltown, IA 50158
EPA ID NUMBER: IAR000500439 **DATE:** 02/23/2011

NOTICE: I am not an employee of the Environmental Protection Agency ("EPA"). I am a contractor for EPA retained to conduct compliance evaluation inspections. The following is a list of observations/recommendations found during this inspection which will be reported back to EPA. This is not to be construed as a complete list of observations/recommendations. The EPA will be evaluating the report prepared as a result of this inspection and making the determinations as to what violations may have occurred at your facility.

on Lehman

1. Failure to mark waste lamp with the following: "Universal Waste - lamps" or "Waste Lamps" or "Used lamps" 40 CFR 273.14(e)
2. Failure to track accumulation time of Universal Waste Lamps: 40 CFR 273.15(c)
3. ~~3.~~ JP
3. Failure to post the name and telephone number of the emergency coordinator next to telephones - 40 CFR 262.34(d) ~~(5)(iii)~~ (5)(ii) A JP
4. ~~4.~~ Failure to post the location of spill control material next to telephones 40 CFR 262.34(d) ~~(5)(ii)~~ (5)(ii)(B) JP
5. ~~5.~~ ~~6.~~ Failure to store hazardous waste in a closed container: 40 CFR 262.34 ~~(4)(e)~~ JP (c)(1)(i) referencing 40 CFR 265.173(a)
F003 D002

If you have any questions regarding these findings please contact

The undersigned person hereby acknowledges receipt of a copy of this document and has read the same.

PRINTED NAME: Jon Lehman **TITLE:** NA Seed Quality Control Lead

SIGNATURE: Jon Lehman

This document was prepared by John H Parker

NOTICE OF PRELIMINARY FINDINGS (Continued)

FACILITY NAME: Mycogen Seeds Quality Lab
ADDRESS: 208 Leo Street
Marshalltown, Iowa 50158
EPA ID NUMBER: IAR000500439 **DATE:** 02/23/2011

6 Failure to attempt to make arrangements with police and local hospitals is a violation of 40 CFR 262.34(d)(4) referencing 265.37(a)(1) and (a)(4)

INITIALS OF RECIPIENT: _____

INITIALS OF PREPARER: HP

Attachment 11

2009 Aerial Photo

Attachment 11 page 1 of 1

Attachment 12

Generator Waste Stream Worksheet

Appendix 1-6 GENERATOR WASTE STREAM WORKSHEET

1. WASTE STREAM: Solid seed materials

FACILITY DETERMINATION: ☐Hazardous ☑Non-hazardous ☐Not done ☐Inadequate

WASTE CODES:

DETERMINATION METHOD: ☑Product knowledge ☐Process knowledge ☐Testing

Documentation:

GENERATING PROCESS: left over seeds and solid organic materials

GENERATION RATE: ~3000 lbs/mo

ON-SITE MANAGEMENT: Satellites ☐Visually inspected Storage ☑Visually inspected

stored in 40 bushel fabric totes in cold storeage room.

OFF-SITE MANAGEMENT/DISPOSITION: fabric totes removed to local seed plant for incineration with off-Speed seeds

2. WASTE STREAM: ~~Waste photo developament chemicals~~ Laboratory Wastes JP

FACILITY DETERMINATION: ☑Hazardous ☐Non-hazardous ☐Not done ☐Inadequate

WASTE CODES: D011, D001, D002, F003, D009

DETERMINATION METHOD: ☐Product knowledge ☑Process knowledge ☐Testing

Documentation:

GENERATING PROCESS: film sheets are washed with solution to fix images. other test equipment is cleaned with small quantities of solvents

GENERATION RATE: 230 lbs/mo.

ON-SITE MANAGEMENT: Satellites ☑Visually inspected Storage ☐Visually inspected

waste wash solution colled in 2 gallon container under hood in genetic purity lab. Container is emptied each night into 55 gal Container in chemical storage room.

OFF-SITE MANAGEMENT/DISPOSITION: when 55 gal container full it is transpored by Veolia of Sauget, IL for disposal.

3. WASTE STREAM: Solid NoN-hazardous lab wastes

FACILITY DETERMINATION: ☐Hazardous ☑Non-hazardous ☐Not done ☐Inadequate

WASTE CODES:

DETERMINATION METHOD: ☑Product knowledge ☑Process knowledge ☐Testing

Documentation:

GENERATING PROCESS: rubber gloves, plastic test tubes, elsa plates and plastic pipetts from lab testing

GENERATION RATE: 400 lbs/mo

ON-SITE MANAGEMENT: Satellites ☑Visually inspected Storage ☑Visually inspected

waste containers are dumped into 55 gallon containers for storage prior to removal for disposal

OFF-SITE MANAGEMENT/DISPOSITION: 55-gallon containers are transported for disposal by Veolia

Appendix 1-6 GENERATOR WASTE STREAM WORKSHEET

4 X. WASTE STREAM: Waste Sand

FACILITY DETERMINATION: ☐Hazardous ☑Non-hazardous ☐Not done ☐Inadequate

WASTE CODES:

DETERMINATION METHOD: ☑Product knowledge ☐Process knowledge ☐Testing

Documentation:

GENERATING PROCESS: sand is wasted after used as generation beds for seed.

GENERATION RATE: 5-6 tons per month

ON-SITE MANAGEMENT: Satellites ☑Visually inspected Storage ☑Visually inspected

seed bed pans are cleaned out into 1½ cu yd dumpsters in warehouse area. The dumpsters are dumped into a pile in the back yard of facility. Occassionaly local contractors use the sand for winter ice treatment

OFF-SITE MANAGEMENT/DISPOSITION:

5 X. WASTE STREAM: general office trash

FACILITY DETERMINATION: ☐Hazardous ☑Non-hazardous ☐Not done ☐Inadequate

WASTE CODES:

DETERMINATION METHOD: ☑Product knowledge ☐Process knowledge ☐Testing

Documentation:

GENERATING PROCESS: waste baskets in offices are dumped into dumpster out SW of bldg

GENERATION RATE: 1.5 tons / week

ON-SITE MANAGEMENT: Satellites ☑Visually inspected Storage ☑Visually inspected

waste baskets are dumped into dumpster in warehouse ~~outside~~ of facility daily - when full it is moved outside

OFF-SITE MANAGEMENT/DISPOSITION: Hauled by Stone Sanitation of Marshalltown to the Marshall County landfill

6 X. WASTE STREAM: Waste batteries

FACILITY DETERMINATION: ☐Hazardous ☑Non-hazardous ☐Not done ☐Inadequate

WASTE CODES: U W

DETERMINATION METHOD: ☑Product knowledge ☑Process knowledge ☐Testing

Documentation:

GENERATING PROCESS: batteries from various equipment

GENERATION RATE: 10 lbs / year

ON-SITE MANAGEMENT: Satellites ☐Visually inspected Storage ☐Visually inspected

collected into container in hallway.

OFF-SITE MANAGEMENT/DISPOSITION: Veolia

Appendix 1-6 GENERATOR WASTE STREAM WORKSHEET

7. WASTE STREAM: Waste Lamps
FACILITY DETERMINATION: ☐Hazardous ☑Non-hazardous ☐Not done ☐Inadequate
WASTE CODES: U W
DETERMINATION METHOD: ☑Product knowledge ☑Process knowledge ☐Testing
Documentation:
GENERATING PROCESS: changing out lamp in facility
GENERATION RATE: 80 lamps / year
ON-SITE MANAGEMENT: Satellites ☐Visually inspected Storage ☑Visually inspected
stored in cardboard tubes in cold storage room.
OFF-SITE MANAGEMENT/DISPOSITION: Veolia for recycling

8. WASTE STREAM: Waste Acedic Acid (TCA)
FACILITY DETERMINATION: ☐Hazardous ☑Non-hazardous ☐Not done ☐Inadequate
WASTE CODES:
DETERMINATION METHOD: ☑Product knowledge ☑Process knowledge ☑Testing
Documentation: pH meter mentutnization prior to discharg
GENERATING PROCESS: cleaning gene film.
GENERATION RATE: 45 Liters / day
ON-SITE MANAGEMENT: Satellites ☑Visually inspected Storage ☑Visually inspected
Acedic Acid used to ~~trea~~ wash photo films. Waste acid is moved to container for neutridization and discharge to POTW
OFF-SITE MANAGEMENT/DISPOSITION: discharged into sanitary sewer after metnigation)

9. WASTE STREAM: Cardboard, metal cans, plastic containe for recycling
FACILITY DETERMINATION: ☐Hazardous ☑Non-hazardous ☐Not done ☐Inadequate
WASTE CODES:
DETERMINATION METHOD: ☑Product knowledge ☑Process knowledge ☐Testing
Documentation:
GENERATING PROCESS: card board from packagin, Metal cans fonm packagin, various plastic containe
GENERATION RATE: 1-5 cy dumpster / mo
ON-SITE MANAGEMENT: Satellites ☐Visually inspected Storage ☑Visually inspected
placed in dumpster outside of facility - cans and plastic bottles recycled in plastic bags.
OFF-SITE MANAGEMENT/DISPOSITION: recycling by Stone Sanitaion

Attachment 13

Material Safety Data Sheet for Silver Nitrate Solution

Material Safety Data Sheet

Version 5.0
Revision Date 03/23/2010
Print Date 03/04/2011

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	Silver nitrate
Product Number	:	209139
Brand	:	Sigma-Aldrich
Company	:	Sigma-Aldrich 3050 Spruce Street SAINT LOUIS MO 63103 USA
Telephone	:	+18003255832
Fax	:	+18003255052
Emergency Phone #	:	(314) 776-6555

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards
Oxidizer, Carcinogen, Target Organ Effect, Harmful by ingestion., Corrosive

Target Organs

Eyes, Nerves., Blood, LungsEyes, Nerves., Blood, Lungs

GHS Label elements, including precautionary statements

Pictogram

Signal word Danger

Hazard statement(s)

H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H400	Very toxic to aquatic life.
H413	May cause long lasting harmful effects to aquatic life.

Precautionary statement(s)

P220	Keep/Store away from clothing/ combustible materials.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.

HMIS Classification

Health hazard:	3
Chronic Health Hazard:	*
Flammability:	0
Physical hazards:	2

NFPA Rating

Health hazard:	3
Fire:	0
Reactivity Hazard:	2
Special hazard.:	OX

Attachment 13 page 1 of 6

Potential Health Effects

Inhalation	May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Skin	May be harmful if absorbed through skin. Causes skin burns.
Eyes	Causes eye burns.
Ingestion	Harmful if swallowed. Causes burns.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : $AgNO_3$
Molecular Weight : 169.87 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
Silver nitrate			
7761-88-8	231-853-9	047-001-00-2	-

4. FIRST AID MEASURES

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.Move out of dangerous area.

If inhaled
If breathed in, move person into fresh air. If not breathing give artificial respiration Consult a physician.

In case of skin contact
Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Continue rinsing eyes during transport to hospital.Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Specific hazards arising from the chemical
Container explosion may occur under fire conditions.

Special protective equipment for fire-fighters
Wear self contained breathing apparatus for fire fighting if necessary.

Further information
Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up
Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling
Avoid formation of dust and aerosols.
Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Keep away from combustible material.

Conditions for safe storage
Keep container tightly closed in a dry and well-ventilated place.

Light sensitive.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Update	Basis
Silver nitrate	7761-88-8	TWA	0.01 mg/m3	1993-06-30	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		TWA	0.01 mg/m3	1994-09-01	USA. ACGIH Threshold Limit Values (TLV)
		TWA	0.01 mg/m3	1997-08-04	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		TWA	0.01 mg/m3	2007-01-01	USA. ACGIH Threshold Limit Values (TLV)
Remarks	Argyria varies				
		TWA	0.01 mg/m3	1989-01-19	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000

Personal protective equipment

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection
Handle with gloves.

Eye protection
Face shield and safety glasses

Skin and body protection
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	solid
Colour	white

Safety data

pH	no data available
Melting point	212 °C (414 °F) - dec.
Boiling point	440 °C (824 °F) - Decomposes on heating.

Flash point	no data available
Ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Density	4.350 g/cm3
Water solubility	no data available
Partition coefficient: n-octanol/water	log Pow: 5

10. STABILITY AND REACTIVITY

Chemical stability
Decomposes on exposure to light. Stable under recommended storage conditions.

Conditions to avoid
Light.

Materials to avoid
Strong reducing agents, Alcohols, Ammonia, Magnesium, Strong bases

Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - nitrogen oxides (NOx), Silver/silver oxides

11. TOXICOLOGICAL INFORMATION

Acute toxicity
LD50 Oral - rat - 1,173 mg/kg
Remarks: Behavioral:Tetany. Cyanosis Diarrhoea

Skin corrosion/irritation
no data available

Serious eye damage/eye irritation
Eyes - rabbit - Severe eye irritation

Respiratory or skin sensitization
no data available

Germ cell mutagenicity
Laboratory experiments have shown mutagenic effects.

Carcinogenicity

IARC:	2A - Group 2A: Probably carcinogenic to humans (Silver nitrate)
ACGIH:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP:	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure (GHS)
no data available

Specific target organ toxicity - repeated exposure (GHS)
no data available

Aspiration hazard
no data available

Potential health effects

Inhalation	May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Ingestion	Harmful if swallowed. Causes burns.
Skin	May be harmful if absorbed through skin. Causes skin burns.
Eyes	Causes eye burns.

Signs and Symptoms of Exposure
May cause argyria (a slate-gray or bluish discoloration of the skin and deep tissues due to the deposit of insoluble albuminate of silver)., Absorption into the body leads to the formation of methemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed 2 to 4 hours or longer.

Additional Information
RTECS: VW4725000

12. ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish	mortality NOEC - Oncorhynchus mykiss (rainbow trout) - 0.108 mg/l - 96.0 h
	mortality LOEC - Oncorhynchus mykiss (rainbow trout) - > 0.007 mg/l - 7.0 d
	LC50 - Oncorhynchus mykiss (rainbow trout) - 0.006 mg/l - 96.0 h
Toxicity to daphnia and other aquatic invertebrates.	EC50 - Daphnia magna (Water flea) - 0.0006 mg/l - 48 h

Persistence and degradability

Bioaccumulative potential

Bioaccumulation	Lepomis macrochirus - 60 d Bioconcentration factor (BCF): 120

Mobility in soil
no data available

PBT and vPvB assessment
no data available

Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

Product
Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
UN-Number: 1493 Class: 5.1 Packing group: II
Proper shipping name: Silver nitrate
Reportable Quantity (RQ): 1 lbs
Marine pollutant: No
Poison Inhalation Hazard: No

IMDG
UN-Number: 1493 Class: 5.1 Packing group: II EMS-No: F-A, S-Q
Proper shipping name: SILVER NITRATE
Marine pollutant: No

IATA
UN-Number: 1493 Class: 5.1 Packing group: II
Proper shipping name: Silver nitrate

15. REGULATORY INFORMATION

OSHA Hazards
Oxidizer, Carcinogen, Target Organ Effect, Harmful by ingestion., Corrosive

DSL Status
All components of this product are on the Canadian DSL list.

SARA 302 Components
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

	CAS-No.	Revision Date
Silver nitrate	7761-88-8	2007-03-01

SARA 311/312 Hazards
Reactivity Hazard, Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

	CAS-No.	Revision Date
Silver nitrate	7761-88-8	2007-03-01

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
Silver nitrate	7761-88-8	2007-03-01

New Jersey Right To Know Components

	CAS-No.	Revision Date
Silver nitrate	7761-88-8	2007-03-01

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Co., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Attachment 14

Hazardous Waste Manifests for Laboratory Wastes

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: IAR000500439
2. Page 1 of: 2
3. Emergency Response Phone: (877) 818-0087
4. Manifest Tracking Number: 000298265 VES

GENERATOR

5. Generator's Name and Mailing Address
MYCOGEN SEEDS QUALITY LAB
MARSHALLTOWN, IA 50158
Generator's Site Address (if different than mailing address): SAME
Generator's Phone: 641 754-0170

6. Transporter 1 Company Name: VEOLIA ES TECHNICAL SOLUTIONS
U.S. EPA ID Number: NJD080631369

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
VEOLIA ES TECHNICAL SOLUTIONS,
W124 N9451 BOUNDARY
MENOMONEE FALLS, WI 53051
Facility's Phone: 262 255-6655
U.S. EPA ID Number: WID003967148

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN1950, WASTE AEROSOLS, FLAMMABLE,(EACH NOT EXCEEDING 1L CAPACITY), 2.1	001	DF	00005	P	D001
X	2. UN1993, WASTE FLAMMABLE LIQUIDS, n.o.s., (ACETONE, METHANOL), 3, II, RQ (D001)	001	DF	00110	P	F003 D001
X	3. UN1814, WASTE POTASSIUM HYDROXIDE, SOLUTION, 8, II	001	DF	00014	P	D002
X	4. UN2809, WASTE MERCURY, 8, III, RQ (D009)	001	DF	00001	P	D009

14. Special Handling Instructions and Additional Information: 1) ERG:126 W:172506 A:CWDAEROSOL 2) ERG:128 W:172506 A:CWDDPK3 3) ERG: 154 W:172506 A:CWDDPK8B 4) ERG:172 W:172506 A:CWDSUPHG + ER Services Contracted By VESTS OU36190 WI Field Services

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: X Richard P. Spears
Signature: X
Month: 01 Day: 03 Year: 11

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: JASON PAULL
Signature:
Month: 01 Day: 03 Year: 11

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141	H141	H141	H141

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Charles Elliott
Signature:
Month: 01 Day: 05 Year: 11

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
IAR000500439	1	(877) 818-0087	000298266 VES

GENERATOR

5. Generator's Name and Mailing Address
MYCOGEN SEEDS QUALITY LAB
2116 LEO STREET
MARSHALLTOWN, IA 50158

Generator's Site Address (if different than mailing address)
SAME

Generator's Phone: 641 754-0170

6. Transporter 1 Company Name
VEOLIA ES TECHNICAL SOLUTIONS

U.S. EPA ID Number
NJD080631369

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
VEOLIA ES TECHNICAL SOLUTIONS
7 MOBILE AVENUE
SAUGET, IL 62201-1069

U.S. EPA ID Number
ILD098642424

Facility's Phone: 618 271-2804

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN1135, WASTE ETHYLENE CHLOROHYDRIN, 6.1 (3), I, POISON INHALATION HAZARD, ZONE B, DOT-SP 9168 57-7572	001	CF	00003	P	D001
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Field Services
1) ERG:131 W:172506 A:TW1172506 + ER Services Contracted By VESTS OU36190 WI

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name	Signature	Month	Day	Year
X Arlene R. Sykes		01	03	11

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name	Signature	Month	Day	Year
JASON PAHL		01	03	11
Transporter 2 Printed/Typed Name	Signature	Month	Day	Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name	Signature	Month	Day	Year
Tim Mrug	Tim Mrug	01	10	11

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
IAR000500439	1	(877) 818-0087	000391879 VES

GENERATOR

5. Generator's Name and Mailing Address
MYCOGEN SEEDS QUALITY LAB
208 LEO STREET
MARSHALLTOWN, IA 50158

Generator's Site Address (if different than mailing address)
SAME

Generator's Phone: 641 754-0170

6. Transporter 1 Company Name
VEOLIA ES TECHNICAL SOLUTIONS

U.S. EPA ID Number
NJD080631369

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
VEOLIA ES TECHNICAL SOLUTIONS
7 MOBILE AVENUE
BAUGET, IL 62201-1069

U.S. EPA ID Number
ILD098642424

Facility's Phone: 618 271-2804

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. NA3082, HAZARDOUS WASTE, LIQUID, n.o.s., (WATER, SILVER), 9, III, RQ (D011) 37-5210	001	DM	400	P	D011
	2. EMPTY CONTAINERS 37-5209	024	DF	1,920	P	NONE
	3. EMPTY CONTAINERS				P	NONE
	4.					

14. Special Handling Instructions and Additional Information
1) ERG:171 W:72240 A:TWI072240 2) W:72224 A:TWI072224 3) W:72224 A:
TWI072224 + ER Service Contracted by VESTS

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Traci Heimer | Signature: Traci Heimer | Month: 11 | Day: 16 | Year: 10

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: GARY BARES | Signature: Gary Bares | Month: 11 | Day: 16 | Year: 10

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) | U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) | Month | Day | Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040	H040		

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Cynthia Williams | Signature: Cynthia Williams | Month: 12 | Day: 6 | Year: 10

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: IAR000500439
2. Page 1 of: 2
3. Emergency Response Phone: (877) 818-0087
4. Manifest Tracking Number: 000298265 VES

GENERATOR

5. Generator's Name and Mailing Address
MYCOGEN SEEDS QUALITY LAB
[redacted] STREET
MARSHALLTOWN, IA 50158

Generator's Site Address (if different than mailing address): SAME

Generator's Phone: 641 754-0170

6. Transporter 1 Company Name: VEOLIA ES TECHNICAL SOLUTIONS
U.S. EPA ID Number: NJD080631369

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
VEOLIA ES TECHNICAL SOLUTIONS,
W124 N9451 BOUNDARY
MENOMONEE FALLS, WI 53051
Facility's Phone: 262 255-6655
U.S. EPA ID Number: WID000396714 8

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN1950, WASTE AEROSOLS, FLAMMABLE,(EACH NOT EXCEEDING 1L CAPACITY), 2.1	001	DF	00005	P	D001
X	2. UN1993, WASTE FLAMMABLE LIQUIDS, n.o.s., (ACETONE, METHANOL), 3, II, RQ (D001)	001	DF	00110	P	F003, D001
X	3. UN1814, WASTE POTASSIUM HYDROXIDE, SOLUTION, 8, II	001	DF	00014	P	D002
X	4. UN2809, WASTE MERCURY, 8, III, RQ (D009)	001	DF	00001	P	D009

14. Special Handling Instructions and Additional Information
1) ERG:126 W:172506 A:CWDAEROSOL 2) ERG:128 W:172506 A:CWDDPK3 3) ERG: 154 W:172506 A:CWDDPK8B 4) ERG:172 W:172506 A:CWDSUPHG + ER Services Contracted By VESTS OU36190 WI Field Services

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: X [redacted] P. Spears
Signature: X [redacted]
Month: 01 Day: 03 Year: 11

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: JASON PAULL
Signature:
Month: 01 Day: 03 Year: 11

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141	H141	H141	H141

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: [redacted] Elliott
Signature:
Month: 01 Day: 05 Year: 11

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Attachment 15

<90-Day Hazardous Waste Container Storage Area Inspection Form

<90-Day Hazardous Waste Container Storage Area Inspection Form

(Records retention: 5 years + current)

Inspection Requirements: Complete the following checklist for hazardous waste container storage areas. Where appropriate, respond with a **YES** or **NO**.

Inspection Item	Week 1	Week 2	Week 3	Week 4	Week 5
Date	2/1/11	2/7/11	2/14/11	2/22/11	
Time (military time)	6:00 am	9 am	0:30 am	10:45 am	
Inspector's Name	Traci Hern	Traci Hern	Traci Hern	Traci Hern	
Is waste currently being stored? (If **NO, STOP** here)	yes	yes	yes	yes	
• Are containers labeled with words "Hazardous Waste"?	yes	yes	yes	yes	
Is the start of accumulation date on each container?	yes	yes	yes	yes	
Date of oldest container	1/11/2011	1/19/2011	1/19/2011	1/19/2011	
Are all containers free of leaks?	yes	yes	yes	yes	
Are all containers closed?	yes	yes	yes	yes	
Are all containers clean?	yes	yes	yes	yes	
Is there a minimum of 24 inches of aisle space?	yes	yes	yes	yes	
Leadership notified of problems?	—	—	—	—	

Corrective actions:

- Fill in a brief description of the problem encountered.
- Record the corrective action which was taken to resolve the problem.
- Record the date the corrective action was completed.

Note: Corrective actions / problems from previous inspections, which have not been completed, are *not* carried over on subsequent inspection forms. If an inspector responds "no," then review the previous inspection forms to find when the problem was found and what corrective action is being taken.

Problem (Date)	Corrective Action	Date Completed

Continued on next page

Attachment 16

Non-hazardous Waste Manifests

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
IAR000500439	1	(877) 818-0087	000392114 VES

GENERATOR

5. Generator's Name and Mailing Address

MYCOGEN SEEDS QUALITY LAB
208 LINCOLN STREET
MARSHALLTOWN, IA 50158

Generator's Site Address (if different than mailing address) SAME

Generator's Phone: 641 754-0170

6. Transporter 1 Company Name — U.S. EPA ID Number

VEOLIA ES TECHNICAL SOLUTIONS — NJD080631368

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address — U.S. EPA ID Number

VEOLIA ES TECHNICAL SOLUTIONS
7 MOBILE AVENUE
SAUGET, IL 62201-1069

Facility's Phone: 618 271-2804 — ILD098042424

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. EMPTY CONTAINERS 37-8269 1	011	DF	660	P	NONE
	2. EMPTY CONTAINERS	001	CW	200	P	NONE
	3.					
	4.					

14. Special Handling Instructions and Additional Information

1) W:72224 A:TWI072224 2) W:72224 A:TWI072224 - ER Service Contracted by VESTS
DOW CHEMTREC EMERGENCY RESPONSE NUMBER 1-800-424-9300

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name — Signature — Month 1 — Day 13 — Year 11

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Matt Bennett — Signature — Month 01 — Day 13 — Year 11

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040	H040		

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Kevin DeWitt — Signature — Month 01 — Day 20 — Year 11

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

VEOLIA
ENVIRONMENTAL SERVICES

SHIPPING DOCUMENT	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Shipping Document Tracking Number
	IAR000500439	1	(877) 818-0087	ZZ 00200745

5. Generator's Name and Mailing Address
MYCOGEN SEEDS QUALITY LAB
208 LEO STREET
MARSHALLTOWN, IA 50158

Generator's Site Address (if different than mailing address)
SAME

Generator's Phone: 641 754-0170

6. Transporter 1 Company Name
VEOLIA ES TECHNICAL SOLUTIONS
U.S. EPA ID Number: NJD080631369

7. Transporter 2 Company Name
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
VEOLIA ES TECHNICAL SOLUTIONS,
W124 N9451 BOUNDARY
MENOMONEE FALLS, WI 53051
U.S. EPA ID Number: WID003967148

Facility's Phone: 262 255-6655

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Codes
	1. NON-REGULATED MATERIAL, NON-RCRA, NON-DOT., (USED ELISA PLATES)	005	DF	1000	P	NONE
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1) W:72230 A:CWDTWISOL -|- ER Service Contracted by VESTS

15. **GENERATOR S/OFFEROR S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Traci Heimer
Signature: Traci Heimer
Month: 05 Day: 04 Year: 10

INT'L
16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER
17. Transporter Acknowledgment of Receipt of Shipment
Transporter 1 Printed/Typed Name: RICK LEE CORTEZ
Signature:
Month: 05 Day: 04 Year: 10
Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY
18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Shipping Document Tracking Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Report Management Method Codes (i.e., codes for treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141			

20. Designated Facility Owner or Operator: Certification of receipt of shipment except as noted in Item 18a
Printed/Typed Name: Charles Elliott
Signature:
Month: 05 Day: 07 Year: 10

DESIGNATED FACILITY TO GENERATOR

Attachment 16 page 2 of 2

Attachment 17

Hazardous Waste Manifests for Universal Wastes

VEOLIA
ENVIRONMENTAL SERVICES

U90-03260

SHIPPING DOCUMENT	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Shipping Document Tracking Number
	IAR000500439	1	(877) 818-0087	ZZ 00191858

5. Generator's Name and Mailing Address
MYCOGEN SEEDS QUALITY LAB
208 LEO STREET
MARSHALLTOWN, IA 50158

Generator's Site Address (if different than mailing address)
SAME

Generator's Phone: 641 754-0170

6. Transporter 1 Company Name
VEOLIA ES TECHNICAL SOLUTIONS
U.S. EPA ID Number: NJD080631369

7. Transporter 2 Company Name
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
VEOLIA ES TECHNICAL SOLUTIONS
1275 MINERAL SPRINGS DRIVE
PORT WASHINGTON, WI 53074
U.S. EPA ID Number: WID988566543

Facility's Phone: 262 284-6855

GENERATOR

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Codes
X	1 UN2794, BATTERIES, WET, FILLED WITH ACID, ELECTRIC STORAGE, 8, III	001	DF	5	P	NONE
X	2 UN3090, LITHIUM BATTERY, 9, II	001	DF	5	P	NONE
	3 UNIVERSAL WASTE-LAMPS ✓	002	DF	80	P	NONE
	4.					

14. Special Handling Instructions and Additional Information
1) ERG:154 W:72265 A:SSS072265 2) ERG:138 W:119796 A:SSS119796 3) W: 119802 A:SUPBULB + ER Service Contracted by VESTS

D584778

15. **GENERATOR S/OFFEROR S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Traci Heimar
Signature: Traci Heimar
Month: 3 Day: 25 Year: 10

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Shipment

Transporter 1 Printed/Typed Name: GARY BARES
Signature: Gary Bares
Month: 3 Day: 25 Year: 10

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Shipping Document Tracking Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:

Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Report Management Method Codes (i.e., codes for treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141	H141	H010	

20. Designated Facility Owner or Operator: Certification of receipt of shipment except as noted in Item 18a

Printed/Typed Name: Debbie Folz
Signature: Debbie Folz
Month: 04 Day: 05 Year: 10

DESIGNATED FACILITY TO GENERATOR

Attachment 17 page 1 of 1

Attachment 18

Universal Waste Checklist

K. Universal Waste (UW)

1. Universal Waste Generated

Waste:	Fluorescent & HID Lamps	Batteries	Hg-containing equip. and/or thermostats	Pesticides
Qty. Generate/year:	80 lamps	10 lbs	NA	NA
Qty. Presently in storage:	30	3 lbs		
Accumulation Time:	10 mo	10 mo		
Present Disposal Method:	recycling	recycling		

2. Person(s) responsible for universal waste management: Randy Hennings

3. Does the universal waste handler accumulate (collectively) 5,000 kilograms or more at any time (40 CFR 273.9)? **If YES**, a large quantity handler (LQH), go on and also refer to checklist in Appendix 2-2. **If NO**, a small quantity handler (SQH), go on.

Assessing Requirements Common to *Universal Waste SQH & LQH* (40 CFR 273 Subpart B & C, respectively):

#	√/ x	REGULATORY REQUIREMENTS*	COMMENTS
1.	✓	Disposal of UW is not occurring-273.11(a)/273.31(a)	
2.	✓	Diluting or treating universal waste is not occurring, except for responding to releases per 273.17 or by managing specific wastes per 273.13 (waste management)-273.11(b)/273.31(b)	
3.	NA	Has the LQG notified of UW management?-273.32 (a)(1) (not required for SQH)	
4.	✓	Has UW been shipped to another UW handler, a designated facility, or a foreign destination?-273.18(a)/273.38(a) If not, see Appendix 2-2 for off-site shipments	
a.	NA	Does LQH have documentation tracking shipments?-273.39 (not required for SQH-273.19)	
5.	✓	UW package, container, tank, vessel or transport vehicle is marked or labeled-273.14/273.34-as follows:	
a.	✓	"Universal Waste-Battery(ies)," or "Waste Battery(ies)," or "Used Battery(ies)"-273.14(a)/273.34(a)	
b.	NA	For recalled universal waste pesticides; "Universal Waste-Pesticide(s)" or "Waste-Pesticide(s)," and the label that was on or accompanied the product as sold or distributed, or if the label is not available or not feasible to use, the appropriate DOT label as identified in 49 CFR 172-273.14(b)/273.34(b)	
c.	NA	For unused pesticide products as described in 40 CFR 273.3(a)(2): (1) the label that was on the product when purchased, if still legible; (2) if using that label is not feasible, the appropriate label required under DOT regulation 49 CFR Part 172; (3) if using either of the previously described labels is not feasible, another label prescribed or designated by the waste pesticide collection program administered or recognized by a state; **and** (4) the words "Universal Waste-Pesticide(s)" or "Waste-Pesticide(s)"-273.14(c)/273.34(c)	
d.	NA	"Universal Waste-Mercury Containing Equipment," or "Waste Mercury-Containing Equipment," or "Used Mercury-Containing Equipment"-273.14(d)(1)/273.34(d)(1) Thermostats may be labeled: "Universal Waste-Mercury Thermostat(s)," or "Waste Mercury Thermostat(s)," or "Used Mercury Thermostat(s)"-273.14(d)(2)/273.34(d)(2)	
e.	X	"Universal Waste-Lamp(s)," or "Waste Lamp(s)," or "Used Lamp(s)"-273.14(e)/273.34(e)	Not properly labeled

Regulation and Standard		*Violations*
279.24 Off-Site Shipment		
1. Has the generator ensured that the used oil is hauled only by a transporter that has obtained a U.S. Environmental Protection Agency (EPA) identification (ID) number?	☐ Yes ☐ No ☐ NA	
2. Does the generator have a tolling arrangement with a transporter without an EPA ID number?	☐ Yes ☐ No ☐ NA	
If yes, answer the three following questions. If no, move to question 6.		
3. Is the used oil reclaimed and returned by the processor or re-refiner to the generator for use as a lubricant, cutting oil, or coolant?	☐ Yes ☐ No ☐ NA	
4. Does the tolling contract indicate the type of used oil and the frequency of shipment?	☐ Yes ☐ No ☐ NA	
5. Is the vehicle used to transport the used oil to the processing or re-refining facility and to deliver recycled used oil back to the generator owned and operated by the used oil processor or re-refiner?	☐ Yes ☐ No ☐ NA	
6. Does the generator transport used oil generated at the generator's site or used oil collected from household do-it-yourselfers to a used oil collection center or to aggregation points owned by the generator?	☐ Yes ☐ No ☐ NA	
Regulation and Standard		*Violations*
7. Does the generator transport used oil in a vehicle owned by the generator or an employee of the generator?	☐ Yes ☐ No ☐ NA	
8. Does the generator transport no more than 55 gallons of used oil at any time?	☐ Yes ☐ No ☐ NA	
9. Does the generator transport the used oil to a used oil collection center that is registered, licensed, permitted, or recognized by a state/county/municipal government to manage used oil?	☐ Yes ☐ No ☐ NA	

For further Used Oil questions refer to Appendix 2-4:

Subpart D – Standards for Used Oil Collection Centers and Aggregation Points
Subpart E – Standards for Used Oil Transporters and Transfer Centers
Subpart F – Standards for Used Oil Processors and Re-Refiners
Subpart G – Standards for Used Oil Burners Who Burn Off-Specification Used Oil for Energy Recovery
Subpart H – Standards for Used Oil Fuel Marketers

6.	✓	Accumulation Time Limits – 273.15/273.35 A UW handler may accumulate universal waste **no longer than a year** from the date of generation or receipt from another handler, unless the requirements of paragraph 273.15(b) are met, as follows:	
a.	✓	Storage over one year is solely for the purpose of accumulation of such quantities as necessary to facilitate proper recovery, treatment, or disposal and the handler provides proof of this – 273.15(b)/273.35(b) For further requirements of UW retention time documentation, see Appendix 2-2.	
7.	✓	Employee Training – 273.16/273.36 The UW handler must inform all employees who handle or have responsibility for managing universal waste of the proper handling and emergency procedures appropriate to the type(s) of universal waste handled at the facility.	
8.	N	Response to Releases – 273.17/273.37 – Did you observe any releases or did any releases occur? – if yes, see Appendix 2-2.	
9.	NA	Handlers of universal waste that self-transport universal waste off-site become a universal waste transporter for those self-transportation activities and must comply with the transporter requirements of subpart D of this part while transporting the universal waste – 273.18(b)/273.38(b) – and see Appendix 2-2.	

L. RCRA AIR EMISSIONS

1. **Is facility a LQG__Interim Status TSD__or Permitted TSD__ <u>If NOT, do not continue with the RCRA Air Emissions checklists.</u>**

2. Location of records:_____

3. Person responsible for records:_____

<u>Assessing RCRA Air Emission Requirements</u> (Subparts AA, DD and CC) commonly applicable:

#	√/ x	REGULATORY REQUIREMENT*	MANIFEST #'S AND COMMENTS
1.		**<u>Subpart AA</u>** – 264/5.1030 Does the facility have any hazardous waste management unit using the following processes: distillation, fractionation, thin-film evaporation, solvent extraction, air stripping and steam stripping? **If NO, then proceed to the Subpart BB checklist.** If YES, refer to specific Subpart AA questions in Appendix 2-3	
2.		**<u>Subpart BB</u>** regulated equipment – 264/5.1050 Does the facility have any valves, flanges, or pumps that contain or contact hazardous wastes with >10% organics?	
a.		Does the facility have any compressors, pressure relief devices, sampling connection systems, flanged pipe, open-ended valve, or line that contain or contact hazardous wastes with >10% organics?	
b.		Is the facility claiming the <300 hours exemption?	
3.		If any of the answers to questions 2(a), (b), or (c) above is Yes, does the facility have a list of each piece of equipment that is subject to Subpart BB? (facility should have a list in their operating record, ask for copy)-264/5/1064(g)	
a.		If any of the answers to questions 2(a) or 2(b) is No, does the facility have information or documentation to support its determination (obtain a copy of this documentation for EPA).	
4.		Has this equipment been marked as required by the Subpart BB regulations?-264.1050(d)/265.1050(c)	
5.		Has the facility implemented a LDAR program?-264/5.1064	
6.		See Appendix 2-3 for more specific Subpart BB questions.	
7.		**<u>Subpart CC</u>** – 264/5.1080 Are there any units at the facility subject to the CC Rule?	
a.		If the answer to 7(a) is No, what is the reason? Refer to 40 CFR 265.1080(b) (264.1080(b)) exceptions or 265.1083(c) (264.1082(c)) exemptions, or the general exclusions in 265.1(g) (264.1(g)).	
b.		If the answer is Yes, refer to Appendix 2-3 for more specific Subpart CC questions.	

Attachment 19

Material Safety Data Sheet for Trichloroacetic Acid Solution

Material Safety Data Sheet

Version 4.0
Revision Date 06/04/2010
Print Date 03/04/2011

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	Trichloroacetic acid
Product Number	:	116114
Brand	:	Sigma-Aldrich
Company	:	Sigma-Aldrich 3050 Spruce Street SAINT LOUIS MO 63103 USA
Telephone	:	+18003255832
Fax	:	+18003255052
Emergency Phone #	:	(314) 776-6555

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards
Target Organ Effect, Corrosive, Carcinogen

Target Organs

Central nervous system

Other hazards which do not result in classification
Vesicant.

GHS Label elements, including precautionary statements

Pictogram

Signal word Danger

Hazard statement(s)

H303	May be harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.
P501	Dispose of contents/container to an approved waste disposal plant.

HMIS Classification

Health hazard:	3
Chronic Health Hazard:	*
Flammability:	1
Physical hazards:	0

NFPA Rating

Health hazard:	3
Fire:	1
Reactivity Hazard:	0

Potential Health Effects

Inhalation	May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Skin	May be harmful if absorbed through skin. Causes skin burns.
Eyes	Causes eye burns. Causes severe eye burns.
Ingestion	May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : TCA

Formula : $C_2HCl_3O_2$

Molecular Weight : 163.39 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
Trichloroacetic acid			
76-03-9	200-927-2	607-004-00-7	-

4. FIRST AID MEASURES

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.Move out of dangerous area.

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.Continue rinsing eyes during transport to hospital.

If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters
Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling
Avoid formation of dust and aerosols.
Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Conditions for safe storage
Store under nitrogen. Keep container tightly closed in a dry and well-ventilated place.

hygroscopic

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Update	Basis
Trichloroacetic acid	76-03-9	TWA	1 ppm	2007-01-01	USA. ACGIH Threshold Limit Values (TLV)
Remarks	Eye & Upper Respiratory Tract irritation Confirmed animal carcinogen with unknown relevance to humans: The agent is carcinogenic in experimental animals at a relatively high dose, by route(s) of administration, at site(s), of histologic type(s), or by mechanism(s) that may not be relevant to worker exposure. Available epidemiologic studies do not confirm an increased risk of cancer in exposed humans. Available evidence does not suggest that the agent is likely to cause cancer in humans except under uncommon or unlikely routes or levels of exposure.				
		TWA	1 ppm 7 mg/m3	1989-01-19	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000

Personal protective equipment

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection
Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection
Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	flakes
Colour	white

Safety data

pH	1 at 81.7 g/l at 25 °C (77 °F)
Melting point	54 - 58 °C (129 - 136 °F) - lit.
Boiling point	196 °C (385 °F) - lit.
Flash point	> 113 °C (> 235 °F) - closed cup
Ignition temperature	no data available

Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure	1 hPa (1 mmHg) at 51 °C (124 °F) 1.6 hPa (1.2 mmHg) at 50 °C (122 °F)
Density	1.62 g/mL at 25 °C (77 °F)
Water solubility	81.7 g/l at 20 °C (68 °F) - completely soluble
Partition coefficient: n-octanol/water	log Pow: 1.645
Relative vapour density	5.64 - (Air = 1.0)

10. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.

Conditions to avoid
Exposure to moisture. Heat.

Materials to avoid
Strong oxidizing agents, Strong bases, Amines

Hazardous decomposition products
- Trichloroacetic acid decomposes above 200 °C forming HCl, CO and Phosgene.
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas

11. TOXICOLOGICAL INFORMATION

Acute toxicity
LD50 Oral - rat - 3,320 mg/kg

Skin corrosion/irritation
no data available

Serious eye damage/eye irritation
Eyes - rabbit - Severe eye irritation - 5 s

Respiratory or skin sensitization
no data available

Germ cell mutagenicity

no data available

Carcinogenicity

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

IARC:	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
IARC:	3 - Group 3: Not classifiable as to its carcinogenicity to humans (Trichloroacetic acid)
NTP:	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure (GHS)
no data available

Specific target organ toxicity - repeated exposure (GHS)
no data available

Aspiration hazard
no data available

Potential health effects

Inhalation	May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Ingestion	May be harmful if swallowed.
Skin	May be harmful if absorbed through skin. Causes skin burns.
Eyes	Causes eye burns. Causes severe eye burns.

Signs and Symptoms of Exposure
burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.
Central nervous system depression, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional Information
RTECS: AJ7875000

12. ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish	LC50 - Pimephales promelas (fathead minnow) - 2.000 mg/l - 96.0 h
Toxicity to daphnia and other aquatic invertebrates.	EC50 - Daphnia magna (Water flea) - 1,460 - 2,000 mg/l - 48 h

Persistence and degradability

Biodegradability	Zahn-Wellens Test Result: 5 % - Not readily biodegradable.

Bioaccumulative potential
no data available

Mobility in soil
no data available

PBT and vPvB assessment
no data available

Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Very toxic to aquatic life with long lasting effects.

13. DISPOSAL CONSIDERATIONS

Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

UN-Number: 1839 Class: 8 Packing group: II
Proper shipping name: Trichloroacetic acid
Marine pollutant: No
Poison Inhalation Hazard: No

IMDG
UN-Number: 1839 Class: 8 Packing group: II EMS-No: F-A, S-B
Proper shipping name: TRICHLOROACETIC ACID, SOLID
Marine pollutant: No

IATA
UN-Number: 1839 Class: 8 Packing group: II
Proper shipping name: Trichloroacetic acid

15. REGULATORY INFORMATION

OSHA Hazards
Target Organ Effect, Corrosive, Carcinogen

DSL Status
All components of this product are on the Canadian DSL list.

SARA 302 Components
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards
Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

	CAS-No.	Revision Date
Trichloroacetic acid	76-03-9	2007-03-01

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
Trichloroacetic acid	76-03-9	2007-03-01

New Jersey Right To Know Components

	CAS-No.	Revision Date
Trichloroacetic acid	76-03-9	2007-03-01

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Co., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.